

# **Exhibit 1**

UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF NEW YORK

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MEGAN VILLELLA, Individually  
and on Behalf of all Others  
Similarly Situated,  
Plaintiffs,

vs. Case No.  
15-cv-02106-ER-GWG

CHEMICAL AND MINING COMPANY  
OF CHILE, INC., et al.,  
Defendants.

-----x

VIDEOTAPED DEPOSITION OF BJORN STEINHOLT

DATE: Friday, November 9, 2018  
TIME: 9:05 a.m.  
LOCATION: Robbins Geller Rudman & Dowd  
One Montgomery Street  
San Francisco, California

Reported By: Lynne Ledanois, CSR 6811  
Job No. 149397

November 9, 2018  
9:05 a.m.

Deposition of Bjorn Steinholt, held  
at Robbins Geller Rudman & Dowd, One  
Montgomery Street, San Francisco,  
California, before Lynne Ledanois, Certified  
Shorthand Reporter No. 6811.

# A P P E A R A N C E S:

FOR CHEMICAL AND MINING COMPANY OF CHILE, INC:  
MILBANK, TWEED, HADLEY & McCLOY  
By: GRANT MAINLAND, Esq.  
ALISON BONELLI, Esq.  
28 Liberty Street  
New York, New York 10005

## FOR THE PLAINTIFFS:

ROBBINS GELLER RUDMAN & DOWD LLP  
By: ARMEN ZOHRABIAN, Esq.  
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One Montgomery Street  
San Francisco, California 94104

Also Present: Tony Hensley, Videographer  
Michael Holland, Analysis Group

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San Francisco, California  
Friday, November 9, 2018  
9:05 a.m.

VIDEOGRAPHER: This is the start of media labeled Number 1 of the video recorded deposition of Bjorn Steinholt in the matter of Megan Villella, et al., versus Chemical and Mining Company of Chile Incorporated, et al., in the United States District Court for the Southern District of New York, case number 1:15-cv-02106-ER.

This deposition is being held at One Montgomery Street in San Francisco, California on November 9th, 2018 at approximately 9:05 a.m.

My name is Anthony Hensley. I'm the legal video specialist from TSG Reporting Incorporated, headquartered at 747 Third Avenue, New York, New York. The court reporter is Lynne Ledanois in association with TSG Reporting.

Counsel, will you please introduce yourselves.

MR. ZOHRABIAN: Armen Zohrabian for

plaintiffs and the witness.

MR. MELAMED: Matt Melamed, plaintiffs and the witness.

MS. BAIG: Aelish Baig representing plaintiffs and the witness.

MR. MAINLAND: Grant Mainland of Millbank, Tweed, Hadley & McCloy on behalf of the defendant SQM. And I'm joined by Allison Bonelli, also of Millbank, and Mike Holland of Analysis Group.

VIDEOGRAPHER: Would the court reporter please swear in the witness.

BJORN STEINHOLT,  
having been first duly sworn, testified as follows:

VIDEOGRAPHER: Counsel, you may now proceed.

#### EXAMINATION

BY MR. MAINLAND:

Q Good morning.

A Good morning.

Q You've been deposed many times before; correct?

A Correct, yes.

Q Approximately how many times?

A All the times are listed on my C.V. Actually, there may be two additional ones that had not been completed at the time I submitted my report. But I think there are two additional ones plus the ones on my -- that's listed on my C.V.

Q So approximately dozens of times; is that fair to say?

A Thirty-five, 40 times.

Q That's your estimate?

A Correct, yes.

Q Is it fair to say you're very familiar with the process of being deposed?

A I get deposed probably two times, three times a year, so --

Q And you've been doing that for many years; correct?

A Yes. I think I started around 2003. For 15 years, yes.

Q So I'm going to skip -- if it's okay with you, I'm going to skip the preliminaries and jump right in to the substance of my questioning. Is that okay?

A That's fine.

Q So before we went on the record, I

placed before you a document that's been marked Steinholt Exhibit 1.

(Exhibit 1 was marked.)

BY MR. MAINLAND:

Q Is this the report that you prepared the submitted in this case?

A Yes, this looks to be the report that I submitted on January 10th, 2018 in this case.

Q And just to be clear for the record, the only thing that we've changed to this document is we've inserted some letter tabs so that it is clear to you when I'm directing you to a particular exhibit to your report. So it's easy for you to reach that part of the report. Otherwise, I can assure you that the report remains untouched.

A I appreciate that.

Q Now, when I speak of directing you to exhibits, why don't I direct you to Exhibit A of your report. This is your C.V.; correct?

A That's correct, yes.

Q Is it an accurate reflection of your professional and educational background?

A Yes, it is.

Q You do not have a degree in finance,

1 do you?

2 A In finance? I mean, I went to  
3 graduate business school where my focus was  
4 finance.

5 Q Do you have a degree in finance?

6 A If you're asking me whether or not  
7 there is -- I mean, finance was one of the  
8 emphasis of my graduate degree.

9 Q We'll get to your graduate degree.  
10 Your graduate degree is a master's of  
11 international business; correct?

12 A That's correct. My focus was finance  
13 and I was particularly focusing in on investment  
14 research.

15 Q Do you have a degree in economics?

16 A Again, I went to graduate school and  
17 that's where I was trained in finance, in  
18 investment research, in evaluation, in  
19 statistics, econometrics. That's my training.  
20 You know, the business degree does not  
21 specifically say finance, but certainly it was  
22 included in that economics was also included in  
23 that.

24 I also have training through the CFA  
25 program. I have a -- which is a three-year

1 program that also focuses on investment  
2 research, valuation, equity analysis, securities  
3 analysis, econometrics, statistics and so on.

4 Q You said a lot of things there that  
5 were not responsive to what I asked. You  
6 understand, do you not, that there are degrees  
7 out there that are called a Ph.D. in economics;  
8 correct? Is there such a thing?

9 A I do not have a Ph.D., so I do not --

10 Q You don't have a Ph.D. of any sort;  
11 right?

12 A That's correct, yes.

13 Q You don't have a master's degree --  
14 let's just say terminologically speaking, is  
15 there such a thing as a master's degree in  
16 economics?

17 A I would imagine so. I can just tell  
18 you what I have. And what I have a degree in is  
19 listed on my C.V. How you characterize it is up  
20 to you.

21 Q What is a master of international  
22 business?

23 A It is the same as an MBA, but we had  
24 to take one additional interdisciplinary course  
25 and we would have to have a second language

1 requirement. And so we -- it's the same as a  
2 master of business administration.

3 Q It's a one-year program at the  
4 University of San Diego, is it not?

5 A That's not correct.

6 Q When you received your master of  
7 international business, when did you start and  
8 when did you end?

9 A It was a two-year program.

10 Q When did you start and when did it  
11 end?

12 A I started in 1997, it ended in 1999.  
13 It's a two-year program.

14 Q So it started in September of 1997 and  
15 ended in which year of 1999?

16 A In the fall of 1997, that's when I  
17 started and it ended two years later in '99.

18 Q You're saying 1997 and '99?

19 A '89, I'm sorry. It's a two-year  
20 program.

21 Q And your undergrad degree, your  
22 undergraduate degree is a bachelor of science in  
23 computer science and engineering; is that  
24 correct?

25 A That's correct, yes.

1 Q And that following that, you pursued  
2 another degree at the University of Trondheim in  
3 Norway?

4 A It was taken at the same time. It was  
5 a parallel thing. So when I -- I was on a  
6 scholarship and the agreement was that I also  
7 would take additional courses in order to  
8 satisfy the Norwegian degree of Sivillingenior.

9 Q That program was also in engineering;  
10 correct?

11 A Correct, yes.

12 Q And you also have a chartered  
13 financial analyst designation; is that right?

14 A That's correct, yes.

15 Q That's a self-study program; correct?

16 A Yes. It's a self-study program, then  
17 you have three tests that you have to take and  
18 pass.

19 Q Okay. So there are no classes or  
20 teachers, you just read and take a test; is that  
21 right?

22 A You have the option of doing that. I  
23 actually did take classes.

24 Q How many classes did you take?

25 A It would be one week kind of -- for

1 each test you would go and you would have a  
2 one-week kind of time period where you took a  
3 lot of different classes. But it was also based  
4 on your professional experience and also based  
5 on self-study.

6 So prior to actually showing up for  
7 that one-week set of courses, you should pretty  
8 much be familiar with the course material.

9 Q I assume you have no other academic  
10 degrees other than what's listed on your C.V.?

11 A That's correct, yes.

12 Q Is it fair to say you have no other  
13 professional certifications other than your CFA?

14 A That's correct.

15 Q Your first job following your master  
16 of international business degree appears to be  
17 at Princeton Venture Research; is that right?

18 A That's correct, yes.

19 Q And your C.V. says that your work at  
20 Princeton Venture included shareholder disputes?

21 A Correct, yes.

22 Q What do you mean by shareholder  
23 disputes?

24 A There was a lot of securities  
25 litigation 10b-5 actions, Section 11 actions.

1 So they are all full of the different types of  
2 disputes, that was the majority of them.

3 Q Was that the majority of what you did  
4 during your time at Princeton Venture?

5 A Depending on time period. The  
6 beginning the focus was more on finding  
7 investment opportunities. The defense industry  
8 was coming -- kind of tapering off in San Diego  
9 and there were opportunities to utilize the  
10 skilled workforce in upstart companies. So that  
11 was kind of the focus.

12 The individual who hired me was Bill  
13 McKiernan the first couple of years and I  
14 reported to him. He went down to be president  
15 of McAfee, which then went public and then he  
16 started CyberSource that was sold a few years  
17 back for \$2 billion.

18 So that was kind of the focus early  
19 on. When he left, it shifted more towards  
20 securities litigation. So there was also a lot  
21 of -- I would say a majority of my time would be  
22 securities litigation after he left.

23 Q Mr. McKiernan left in 1992; isn't that  
24 right?

25 A I believe so. I don't have the

1 specific date in my mind. But yes, around that  
2 time.

3 Q You have no reason to doubt that?  
4 That sounds about right?

5 A It sounds about right, yes.

6 Q So you overlapped with him for  
7 approximately two years?

8 A Yes, the first couple of years, yes.

9 Q And then when he left, you  
10 transitioned into doing securities litigation  
11 full-time?

12 A It was mostly securities litigation.  
13 I was also responsible -- I was also the  
14 individual in the San Diego office responsible  
15 for looking for new investment opportunities  
16 that required me to go to, for instance, Comdex  
17 to look at various company presentations there.

18 So I did a little bit of that, but the  
19 majority of my time was spent on litigation  
20 engagement and of those litigation engagements,  
21 certainly 10b-5 actions and Section 11 actions  
22 was the predominant, the largest portion.

23 Q Over the eight-year period that you  
24 were there, approximately what proportion of  
25 your work was devoted to securities class

1 actions or litigation consulting?

2 A It would be a majority. I don't know  
3 if I was there for the full eight years, but it  
4 would be a majority.

5 Q Okay. Can you be more precise than a  
6 majority? Was it 75 percent of your time,  
7 90 percent of your time?

8 A It's a long time ago and I certainly  
9 did my share of securities litigation work.

10 Q Is it fair to say that all of the  
11 securities litigation work you did was on the  
12 plaintiff's side?

13 A There was some -- you're talking about  
14 Princeton Venture Research?

15 Q Yes.

16 A Yes. I think we had some cases on the  
17 defense side. But the vast majority, I would  
18 say more than 90, probably more than 95 percent  
19 of the ones that I was involved with would be on  
20 the plaintiff side.

21 Q Do you recall a specific case where  
22 you did litigation consulting on the defendant's  
23 side from that time period?

24 A My memory of those cases are very,  
25 very vague. I cannot really -- I can't remember

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1 specific cases from way back then.

2 Q So the answer is no?

3 A No, I cannot remember. There may be a  
4 handful of cases out of hundreds of cases I  
5 worked on, I cannot remember.

6 Q You cannot recall any by name?

7 A No.

8 Q Who is John Torkelsen?

9 A John Torkelsen was the president of  
10 Princeton Venture Research. And the president  
11 of Princeton Venture Research was a large  
12 company, more than 50 individuals. And the  
13 headquarter was in Princeton.

14 And then they opened up an office in  
15 San Diego with Bill McKiernan and that's the one  
16 that I joined.

17 Q Did you work with Mr. Torkelsen during  
18 your eight years at Princeton Venture?

19 A Out of the hundreds of cases I worked  
20 on, I worked with him probably a handful of  
21 time.

22 Q What do you mean by a handful of  
23 times?

24 A Well --

25 Q Thirty-five times, ten times?

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1 A I mean, probably five times that I can  
2 think of.

3 Q But there may have been others that  
4 you cannot recall?

5 A No. I mean, Torkelsen was working in  
6 the Princeton office. The only reason for me to  
7 work with him would be if there was a case  
8 that -- where he was testifying and you needed  
9 somebody to support him and his testimony at a  
10 deposition or at trial.

11 So it would be very rare to actually  
12 work with him directly. His time was very  
13 limited.

14 Q So when you worked with him, on the  
15 handful of cases where you did work with him,  
16 what role did you play on those cases?

17 A I would be in a support role; in other  
18 words, I would perform analyses that would go  
19 into his expert reports and then would be -- and  
20 he would then review it and, you know, if he  
21 accepted the analysis and so on, he would sign  
22 on to it and be the testifying expert.

23 Q Did you draft any declaration or  
24 expert reports that he ultimately submitted to  
25 the court?

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1 A Yes.

2 Q Okay. And --

3 A I was part of the drafting process.

4 Q When you say you were part of the  
5 drafting process, it was you and others?

6 MR. ZOHRABIAN: Objection to form.

7 THE WITNESS: When I was there, there  
8 would be -- typically there would be a  
9 supervisor, typically it would be Mark  
10 Kangas.

11 And so I would provide -- or I would  
12 write up a report, I would provide it to  
13 Mr. Kangas and when he thought it was final,  
14 he would take it to Torkelsen and get it  
15 signed.

16 BY MR. MAINLAND:

17 Q So Mr. Torkelsen was eventually  
18 indicted and sentenced to a term in federal  
19 prison; is that right?

20 A My understanding is that in 2008, he  
21 was -- he pled guilty to one count of perjury  
22 that occurred one year after I left, yes.

23 Q And when you say perjury, among the  
24 crimes that he pled guilty to were purging  
25 himself to the court in connection with expert

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1 declarations; isn't that right?

2 A I have no -- my understanding is he  
3 pled guilty to perjury with respect to a  
4 declaration that was written one year after I  
5 left.

6 Q You have no idea what the nature of  
7 the perjury was?

8 A I assume it had to do with billing,  
9 but that's my recollection. But it happened one  
10 year after I left, so I don't know.

11 Q Are you unaware that he admitted that  
12 he perjured himself by representing to courts  
13 that he was independent when, in fact, he was  
14 receiving contingency fees from plaintiffs'  
15 firms?

16 A My understanding is that he pled  
17 guilty to one count of perjury that happened one  
18 year after I left.

19 Q So what I --

20 A I don't know if that is different than  
21 what you're saying or not. That's my  
22 recollection. This is 20 years ago.

23 Q What I said is much more specific than  
24 what you said. Is it news to you that he  
25 perjured himself in that precise manner?



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1 A I don't have as detailed  
2 recollection -- a detailed recollection of it.  
3 My recollection is what I told you. I would not  
4 say it's news or not news to me, but I mean this  
5 is -- he pled guilty ten years ago to something  
6 that happened one year after I left. That's my  
7 recollection.

8 That's the best recollection I have as  
9 I sit here right now.

10 Q So are you saying you've forgotten the  
11 precise way in which he perjured himself or that  
12 you never knew?

13 A I have not read -- I don't think I  
14 even know that I have read anything specifically  
15 in terms of what he has pled guilty to or not.  
16 I mean, it's not something that -- I have not  
17 spoken to the individual for 20 years. It's not  
18 something that I would be particularly involved  
19 in.

20 So I don't -- I mean, I know the  
21 general fact that he pleaded guilty to perjury,  
22 but other than that, it's not something that  
23 involved me. I was in the San Diego office. I  
24 was not called as a witness in any of the  
25 investigation.

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1 with expert declarations submitted during his  
2 time at Princeton venture, that was not  
3 something that you discussed with Mr. Marek?

4 MR. ZOHRABIAN: Objection to form.

5 THE WITNESS: Discussed with  
6 Mr. Marek?

7 BY MR. MAINLAND:

8 Q That wasn't of interest to you and  
9 Mr. Marek?

10 Mr. Marek spent more than ten years at  
11 Princeton Venture, you spent eight years there  
12 and Mr. Torkelsen was the head of the firm.  
13 This was discussed extensively in litigation  
14 circles. Was this not of interest to you?

15 A I didn't say it was not of interest to  
16 me.

17 Q Well, your testimony seems to be that  
18 you don't remember the way in which he perjured  
19 himself. Can that be --

20 A Listen, I have explained to you what I  
21 remember and I think I'm correct and if I  
22 misremember, so be it. Let the record show that  
23 I misremembered. But I think that that's what  
24 happened.

25 Q You think what's what happened? I'm

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1 So I mean, I don't really have any  
2 specific knowledge.

3 Q You worked at Princeton Venture for  
4 approximately eight years; right?

5 A A little bit less.

6 Q That's what your C.V. seems to say, it  
7 says 1990 to 1998. That's approximately eight  
8 years; right?

9 A I worked from September of 1990  
10 through January of 1998.

11 Q And during that time, did you know an  
12 individual named Michael Marek; correct?

13 A Correct.

14 Q He also worked at Princeton Venture;  
15 right?

16 A Yes, he did.

17 Q Eventually, not long after you left  
18 Princeton Venture, the two of you formed a firm  
19 together; correct?

20 A The two of us together with Candace  
21 Preston, yes.

22 Q When the news emerged in the 2000s  
23 that Mr. Torkelsen was being indicted and that  
24 he was pleading guilty to committing perjury  
25 relating to how he was compensated in connection

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1 sorry.

2 A I just explained to you what I  
3 remembered with respect to that particular  
4 incident. And I mean, you can be argumentative  
5 with me, I just -- I came here to talk about  
6 SQM, you're asking me about something that  
7 happened ten years ago that relate to somebody  
8 that was the president of the firm that I worked  
9 for more than 20 years ago.

10 And, you know, as I sit here right  
11 now, I have explained to you what my memory of  
12 that is.

13 Q Did you have any understanding during  
14 your time at Princeton Venture of what fee  
15 arrangements had been worked out between  
16 Mr. Torkelsen and any of the plaintiffs' firms  
17 that he was working with?

18 A No.

19 Q Did you have an understanding while  
20 you were at Princeton Venture as to how that  
21 firm was compensated for its expert work?

22 A On an hourly basis. We were -- every  
23 so often, I think it was every two weeks, every  
24 four week, whatever, we would take our time  
25 sheets and we would send them to the accounting



1 department in Princeton. And then when -- the  
2 accounting department would then use that and  
3 send out the invoices.

4 Q Are you saying that Princeton Venture  
5 was, in fact, compensated on an hourly basis or  
6 that your understanding at the time was that it  
7 was compensated on an hourly basis?

8 A Well, that's my understanding at the  
9 time, yes.

10 Q And -- but you don't recall anything  
11 after leaving Princeton Venture that educated  
12 you otherwise?

13 A Oh, my understanding is that there was  
14 an investigation into the billing practices and  
15 whether or not he was getting billed on a timely  
16 basis. In other words, whether or not he waited  
17 until the end. I don't know if he pleaded  
18 guilty to that or not.

19 Q Why did you leave Princeton Venture in  
20 1998?

21 A I left Princeton Venture Research in  
22 1998 because I wanted to join Business Valuation  
23 Services, another valuation firm.

24 Q Why did you want to join another firm?

25 A Because I did not want to work for

1 Princeton Venture Research anymore and I thought  
2 I had better opportunities at Business Valuation  
3 Services.

4 Q Why didn't you want to work at  
5 Princeton Venture anymore?

6 A One of the things that were happening  
7 in the fall of 1997 -- actually, I think it was  
8 December of 1997, was that the a lot of the  
9 individuals at the San Diego office was  
10 terminated as Mr. Torkelsen explained that he  
11 had made a decision to focus more on venture  
12 capital.

13 I was not terminated because I  
14 actually did -- I was the individual in San  
15 Diego that actually did do some work relating to  
16 venture capital. And it was something that I  
17 did not particularly appreciate.

18 So I told everybody that I would find  
19 another job and I did so and left Princeton  
20 Venture Research right after Christmas.

21 Q Is it fair to say that in or around  
22 1998, Princeton Venture's litigation consulting  
23 business was essentially shut down?

24 A I don't exactly know what the  
25 rationale was, but I do think that -- I'm not

1 going to speculate too much. I think there were  
2 some disagreements between law firm and  
3 Mr. Torkelsen. I don't have any firsthand  
4 knowledge about it.

5 But it did not make much sense to me  
6 and when it did not make sense to me, I thought  
7 it was time to leave.

8 Q When you refer to disagreements, do  
9 you mean disagreements related to compensation?

10 A No, disagreement in terms of what I  
11 saw in terms of what workload and what I heard  
12 from Mr. Torkelsen in terms of workload. There  
13 was a discrepancy there.

14 There seemed to be disagreement in  
15 terms of the amount of work that needed to be  
16 done and the amount of work that Mr. Torkelsen  
17 said was there to be done.

18 And of course, it ultimately resulted  
19 in the termination of a lot of individuals at my  
20 San Diego office. And I did not particularly  
21 appreciate that.

22 Q And I'm having difficulty following.  
23 What is the nature of the disagreements that led  
24 to people being terminated?

25 A The argument was that there was -- the

1 argument from Mr. Torkelsen was that there was  
2 not sufficient litigation work. And what I  
3 heard from the attorneys was that there was  
4 sufficient litigation work.

5 Q And that argument was between  
6 Mr. Torkelsen and the attorneys?

7 A No. What I'm saying is that there is  
8 a discrepancy from what I heard from the  
9 attorneys and what I heard from Mr. Torkelsen.

10 Q And Mr. Torkelsen was saying there's  
11 not enough work to justify retaining employees  
12 who are engaged in that particular practice?

13 A Correct.

14 Q And you were among that group?

15 A No. I was -- he wanted to keep me  
16 because of my work on other projects,  
17 nonlitigation projects.

18 Q Okay.

19 A So I was then the individual -- one of  
20 the individuals that would have remained with  
21 the company.

22 But individuals who were more  
23 litigation oriented were let go and in any  
24 event, I decided it would be better for me to  
25 work for another firm and I worked -- decided to

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1 join Business Valuation Services.

2 Q Setting aside discussions about the  
3 volume of work that was available, did you have  
4 any discussions with Mr. Torkelsen in or around  
5 1998 about the firm not being paid by the  
6 plaintiffs' lawyers?

7 A No.

8 Q Did you have any discussions with  
9 anyone else at Princeton Venture about the firm  
10 not being paid by the plaintiffs' lawyers?

11 A No.

12 Q Was that -- were you in any way  
13 involved during that time period in Princeton  
14 Venture receiving or billing or receiving fees  
15 from the plaintiffs' lawyers?

16 A I never saw a check. It was all done  
17 in the Princeton office.

18 Q Did you prepare any bills?

19 A No, that was all done by the  
20 accounting department in Princeton. The only  
21 thing that we would do would be write up the  
22 work that was performed in a particular -- in a  
23 particular engagement.

24 Q Why would you write off work?

25 A Write up.

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1 publicly-traded company and had nothing to do  
2 with Mr. Torkelsen. I have not worked with him  
3 or I don't recall speaking with him at all since  
4 I left Princeton Venture Research.

5 Q And so he had no involvement at all  
6 with Business Valuation Services?

7 A That's correct, yes.

8 Q You haven't spoken to him once since  
9 you left Princeton?

10 A I don't recall a single time I've  
11 spoken with him. It could have been maybe a  
12 phone call or something like that in the year or  
13 two after, but I don't -- I think it's been  
14 probably 20 years since I've spoken with him.

15 Q You mention in your C.V. that you also  
16 provided litigation support in shareholder  
17 disputes at Business Valuation Services; is that  
18 right?

19 A That's correct, yes.

20 Q And is that more of the same that  
21 we've already discussed, providing litigation  
22 consulting in connection with plaintiffs'  
23 securities class actions?

24 A Yes.

25 Q How much of your time at Business

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1 Q Oh, write up work.

2 A Like time sheets or a synopsis of the  
3 work that was done.

4 Q Now, after Princeton Venture closed,  
5 you've already referenced you went to a firm  
6 called Business Valuation Services; is that  
7 right?

8 A That's correct, yes.

9 Q And in Mr. Torkelsen's -- I guess in  
10 the Department of Justice press release  
11 announcing Mr. Torkelsen's indictment, it refers  
12 to him as the head of both Princeton Valuation  
13 Services but also a company called Equity  
14 Valuation Advisors. Have you heard of the  
15 latter?

16 A My recollection is that he started --  
17 and this is just -- I may be wrong on this, but  
18 my recollection is that he started another  
19 valuation firm with a different name and that  
20 sounds like the name he used, yes.

21 Q It's a very similar name to Business  
22 Valuation Services, so I'm just asking a simple  
23 factual question. Are those the same companies?

24 A No, Business Valuation Services was  
25 actually part of CBIZ, which is a

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1 Valuation Services was devoted to that?

2 A In the beginning, very little to none.  
3 And then as it shifted towards the end of my  
4 two-year tenure there, it became a majority of  
5 my time, which is one of the reasons that I  
6 decided to hang out my own shingles, to get with  
7 Mike and Candace to focus in on securities  
8 litigation full-time.

9 Q And so in or around 2000, you founded  
10 Financial Markets Analysis with Mr. Marek and  
11 Ms. Preston?

12 A That's correct.

13 Q Is that right?

14 A Yes.

15 Q And both Mr. Marek and Ms. Preston  
16 were at Princeton Venture with you; correct?

17 A That's correct. They worked in the  
18 Princeton office, so we did not interact on a  
19 daily or weekly basis necessarily. But we  
20 obviously over the years knew each other.

21 Q Did you know Mr. Marek well?

22 A Know him well? I would -- we would --  
23 we did not work together on more than maybe one  
24 or two projects. But we certainly would call  
25 each other if one had a question about something

1 or -- and of course, I assume you mean during  
2 the Princeton Venture Research time period. And  
3 of course, we also had gatherings with all of  
4 the analysts, so you may have ten, 15 analysts  
5 coming together and we would share ideas and  
6 things of that nature.

7 Q Mr. Marek left Princeton Venture  
8 around the same time that you did; isn't that  
9 right?

10 A Correct.

11 Q Do you know why he left Princeton  
12 Venture?

13 A You would have to ask him. I don't  
14 know the details of his situation.

15 Q Do you know anything about that?

16 A Oh, I know that he went out to work on  
17 his own, but I don't know in terms of the  
18 relationship between him and Princeton Venture  
19 Research, I don't know.

20 Q Was he let go because of the decline  
21 in the amount of litigation consulting work?

22 A I don't know. It happened around that  
23 particular time. I know what happened to the  
24 individuals in the San Diego office, I'm not  
25 that familiar in terms of everything that

1 happened in the Princeton office.

2 Q But you founded a firm with him about  
3 two years after you left Princeton; correct?

4 A Correct. With him and Candace  
5 Preston, yes.

6 Q You never discussed the circumstances  
7 of his leaving Princeton Venture?

8 A No, of course I knew he left. I knew  
9 he left and he was working in -- doing analysis  
10 in the area of securities litigation. So --  
11 and, you know, I kept contact with him.

12 Q But all you knew was that he left.  
13 You didn't know why he left?

14 A I don't know exactly what the details  
15 of why he left, no.

16 Q Do you have any idea? You said you  
17 don't know exactly the details, I'm just asking  
18 as a general matter, do you have any idea why  
19 Mr. Marek left Princeton?

20 A All I know is that it happened at the  
21 same time that we were downsize -- Princeton  
22 Venture Research was downsizing a lot of the  
23 litigation side of the business and people  
24 were -- some people were let go because of the  
25 reduced work in the litigation business.

1 Other people like me decided to resign  
2 and move on to other firms.

3 Q It sounds like your testimony is that  
4 you don't know?

5 A Yes, I don't know the specifics, no.

6 Q You never discussed that with him?

7 MR. ZOHRABIAN: Asked and answered.

8 THE WITNESS: I don't recall what I  
9 discussed, but as I sit here, I mean, you're  
10 talking about something that happened  
11 20 years ago. I don't have a clear  
12 recollection of what I discussed with him  
13 and what I did not discuss with him. I  
14 mean, this is 20 years ago.

15 BY MR. MAINLAND:

16 Q How did you come to found a firm with  
17 Mr. Marek the Ms. Preston?

18 A As I testified earlier, I wanted to  
19 focus in on what I viewed to be an opportunity  
20 in consulting in the securities litigation  
21 space.

22 So I wanted to form a firm and I  
23 wanted to have somebody to work with me. I did  
24 not want to just be a single individual. And I  
25 was reaching out to individuals and seeing if

1 anyone would be interested in forming a firm.

2 Q So you proposed that to Mr. Marek?

3 A I don't remember who proposed that, if  
4 it was him or whether or not it was I who  
5 proposed it. But I know that I was actively  
6 looking for a way to start litigation consulting  
7 firm.

8 Q And he was a natural fit because you  
9 knew he had done that kind of work at Princeton  
10 Venture?

11 A He was a natural fit because he had  
12 done work at Princeton Venture Research, so he  
13 knew the issues, he was very specialized in that  
14 particular field.

15 But more than that, it was also  
16 Candace Preston, who at the time was the  
17 managing director of valuation at Bank of New  
18 York and so I had a lot of discussions with her.

19 Both she and Mr. Marek lived in  
20 Princeton, so it was a natural fit for when I  
21 joined up with her that Mike would also be part  
22 of it.

23 Q And was the exclusive focus of the  
24 firm securities litigation consulting?

25 A It was not the exclusive focus of the

1 firm. But it was certainly the key focus in  
2 order -- I mean, the majority of the work was  
3 related to securities litigation.

4 Q You were there for approximately  
5 14 years; right?

6 A That's correct, yes.

7 Q Was the vast majority of your work  
8 during that time period in securities litigation  
9 consulting?

10 A Yes.

11 Q Did you do anything else?

12 A Yes. We did valuation from 2005  
13 through 2008. I opened an office in Shanghai to  
14 do business valuation over there, took up a lot  
15 of my time.

16 Q What do you mean by business  
17 valuation?

18 A Valuing businesses.

19 Q But in what context? In an M&A  
20 context, in some other context?

21 A It could be M&A context, it could be  
22 for reporting purposes.

23 Q Do you recall a specific M&A  
24 engagement you were involved in where you were  
25 evaluating business?

1 A No. The work that we did -- I'm  
2 trying to think back -- it was ended up being a  
3 lot for reporting purposes. But with respect to  
4 M&A work, there is purchase allocation work that  
5 goes along with that. So -- but I kind of  
6 typically view that as more for reporting  
7 purposes as opposed to M&A work in terms of  
8 fairness opinions.

9 So I make that kind of distinction.

10 Q Does your -- withdrawn.

11 You're opining in this case on market  
12 efficiency; correct?

13 A That's correct, yes.

14 Q And is your professional foundation  
15 for providing an opinion on market efficiency  
16 premised exclusively on your securities  
17 litigation experience?

18 MR. ZOHRABIAN: Objection to form.

19 THE WITNESS: No, I mean, market  
20 efficiency is foundational for a lot of the  
21 work that is done both in investment  
22 research and with respect to valuation.

23 BY MR. MAINLAND:

24 Q How is market efficiency relevant to  
25 valuing a business?

1 A When you do valuation -- for instance,  
2 let's take Financial Accounting Standard 157 --  
3 you have to determine whether or not you use the  
4 market price to value certain assets. If  
5 there's a publicly-traded market price, you use  
6 that if it is an actively-traded market. And  
7 that is premised on the notion that the market  
8 is sufficient, that market price then becomes  
9 the fair value of that asset.

10 So it does -- it is fundamental in  
11 certain aspect of valuations as well.

12 Q So it's a premise to valuation, but I  
13 guess what I'm asking is: Did you actually  
14 conduct analyses of whether a given market was  
15 efficient -- and a market for shares I have in  
16 mind -- in connection with any business  
17 valuation that you did?

18 MR. ZOHRABIAN: Object to form.

19 THE WITNESS: The analysis that's done  
20 in terms of FAS 157 is to determine that the  
21 market is actively traded and that it's not  
22 a distress situation.

23 So -- which is kind of -- it's a  
24 little bit different than what is done in  
25 litigation where we have these Cammer

1 factors. In evaluation you don't go through  
2 Cammer factors. If the security is actively  
3 traded, the market is presumed to be  
4 efficient and you use the market price.

5 BY MR. MAINLAND:

6 Q So your analysis of Cammer factors,  
7 you've learned to do in the course of being a  
8 securities litigation consultation; right?

9 A That's correct. The Cammer factors  
10 are specific to class certification and  
11 securities litigation.

12 Q Now, during your time at Financial  
13 Markets Analysis, was Mr. Marek engaged in  
14 similar securities litigation work?

15 A Yes, he was.

16 Q And are you aware that in late 2013,  
17 Mr. Marek was -- his testimony on market  
18 efficiency was excluded as unreliable and he was  
19 deemed unqualified?

20 A I believe that there was a case, I  
21 think you're referring to Deutsche Bank.

22 Q Correct. Do you recall that?

23 A I recall that, yes.

24 Q Are you aware that in 2014, less than  
25 a year later, Mr. Marek -- Mr. Marek's testimony

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1 on market efficiency was again excluded by a  
2 different federal court in California?

3 A I don't recall one way or the other.  
4 I know that he had one opinion where the court  
5 deemed him to be qualified as an expert. I  
6 think there was another -- there was another  
7 case where they ended up using a different  
8 expert for whatever reason.

9 But I think that that kind of -- it  
10 stemmed from the -- probably stemmed from the  
11 Deutsche Bank issue. But I'm not an expert on  
12 the cases that Mr. Marek has been engaged in.  
13 I'm sure that he's been engaged in hundreds of  
14 cases. I'm not an expert on it. I'm not the  
15 right person to ask those questions.

16 Q I'm not asking if you are an expert in  
17 it, but he was a close business partner of  
18 yours; right?

19 A He was my business partner, yes.

20 Q You worked with him essentially from  
21 the early '90s through 2014; right?

22 A Correct, yes.

23 Q And you did not notice that he was  
24 disqualified in two different cases within the  
25 periods of a year in 2013 and '14?

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1 I -- quite frankly, I don't know the  
2 details of those particular cases.

3 Q Someone else ending up testifying as  
4 an expert and someone being disqualified are two  
5 different things; isn't that right?

6 A Being disqualified?

7 Q The court excluding his testimony is  
8 unreliable, that's different than just the mere  
9 fact that someone else ended up testifying,  
10 isn't it?

11 MR. ZOHRABIAN: Objection to form.

12 THE WITNESS: Yes, and again, I don't  
13 have any details in terms of -- I don't have  
14 any specific recollection with respect to  
15 the specifics that happened with respect to  
16 his testimony.

17 BY MR. MAINLAND:

18 Q You remember Deutsche Bank, but you  
19 don't remember anything else about him being  
20 disqualified by a court during that time period?  
21 It's a very specific question.

22 MR. ZOHRABIAN: Objection to form.

23 THE WITNESS: Listen, I'm not going to  
24 go down this rabbit hole. Listen, I've  
25 explained to you what I remember as I sit

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1 MR. ZOHRABIAN: Objection to form.

2 THE WITNESS: As I said, that's not  
3 what my testimony is.

4 BY MR. MAINLAND:

5 Q Well, so far you identified -- you  
6 agreed that he was disqualified in Deutsche  
7 Bank; correct?

8 A That's my recollection, yes.

9 Q And yet what I heard you to be saying  
10 is that you don't recall that he was  
11 disqualified in a different case less than a  
12 year later?

13 A That's not my testimony.

14 Q Then what is your testimony?

15 A I have some recollection of a case  
16 that -- listen, you're giving not giving me case  
17 names.

18 Q I'm happy to give you the case name,  
19 Brown v. China Integrated Energy Inc.

20 A My recollection, whether or not it's  
21 correct or not, they ended up using a different  
22 expert. And I think there were a couple of  
23 cases, one where he was deemed to be qualified  
24 as an expert and there was one where he was --  
25 someone else ended up testifying as an expert.

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1 here today and that's it.

2 BY MR. MAINLAND:

3 Q I'll take that as testimony that you  
4 don't recall about the second one.

5 MR. ZOHRABIAN: Objection to form.

6 BY MR. MAINLAND:

7 Q It looks like, based on your C.V.,  
8 that you left Financial Markets Analysis in  
9 2014; is that right?

10 A That's correct, yes.

11 Q Did you leave because of the negative  
12 publicity surrounding Mr. Marek's  
13 disqualification?

14 A No, I left because Candace Preston was  
15 starting to retire and I wanted to find another  
16 consulting firm to join.

17 Q So I'm going to -- because the  
18 testimony was a little unclear on whether you  
19 remember the Brown v. China Integrated case  
20 where Mr. Marek was disqualified, I'm just going  
21 to represent to you that he was disqualified in  
22 that case. You don't have to accept it as true,  
23 I'm just saying I'm going to represent that to  
24 you.

25 A Okay.



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1 Q Are you saying that it is purely  
2 coincidental that you left Financial Markets  
3 Analysis right around the time that Mr. Marek  
4 was disqualified in two separate cases in less  
5 than a year?

6 MR. ZOHRABIAN: Objection to form.

7 THE WITNESS: I would have left around  
8 that time regardless of what happened in any  
9 of Mr. Marek's cases.

10 BY MR. MAINLAND:

11 Q So it is purely coincidental?

12 MR. ZOHRABIAN: Same objection.

13 THE WITNESS: The timing has nothing  
14 to do with it, no. I mean, the reasons for  
15 me leaving was completely different. It had  
16 everything to do with me wanting to join  
17 Caliber Advisors. Caliber Advisors and I  
18 had been talking about -- or being in  
19 contact for a long period of time and we had  
20 talked about -- for a long period of time  
21 about joining forces.

22 2014 was the time when it seemed right  
23 for both parties to join forces and  
24 particularly for me, given that Candace  
25 Preston was indicating that she was going to

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1 start retiring.

2 BY MR. MAINLAND:

3 Q Isn't it a significant event for  
4 someone who earns their living testifying in  
5 securities class actions to be disqualified two  
6 times in less than a year?

7 MR. ZOHRABIAN: Objection to form.

8 THE WITNESS: Yes, I think that's a  
9 significant event.

10 BY MR. MAINLAND:

11 Q If that happened to you, that would be  
12 significant for you, wouldn't it?

13 A Yes, it's never happened.

14 Q And you did not have any concern about  
15 the fact that it happened to Mr. Marek?

16 A I don't know if the terminology that  
17 you're using is correct in terms of him being  
18 disqualified or not. But it is -- you know, it  
19 is what it is. It's what happened.

20 Q Well, your professional reputation was  
21 to some degree tied to his, was it not?

22 MR. ZOHRABIAN: Object to form.

23 THE WITNESS: Why?

24 BY MR. MAINLAND:

25 Q Because you were partners of a firm?

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1 A Well, so do you think that if one of  
2 your partners at one of your firm is found to  
3 not live up to whatever the standards are, legal  
4 standards, that necessarily implicates you?

5 Q I'm going to be asking you the  
6 questions today. You can ask me questions, but  
7 I'm not going to answer them. I assume it's a  
8 rhetorical question.

9 This was a firm with you, Mr. Marek  
10 and Ms. Preston, that's it; right?

11 A That's correct.

12 Q So he was a close business associate  
13 of yours?

14 A He was my -- a business partner of  
15 mine, yes.

16 Q He was excluded from two different  
17 cases in less than a year. You weren't worried  
18 about that having any impact on your  
19 professional reputation?

20 MR. ZOHRABIAN: Objection, asked and  
21 answered.

22 THE WITNESS: For me personally, no,  
23 absolutely not. And the reason is that I  
24 have worked in this area for a long time and  
25 I don't think there's any of the attorneys

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1 that looked on that and viewed that as  
2 negatively -- as resulting in or viewing me  
3 negatively because of what happened to  
4 Mr. Marek.

5 You may think so, but none of the --  
6 none of my clients, no one expressed any  
7 concerns about my work because of what  
8 happened to Mr. Marek. That is something I  
9 hear for the first time by you.

10 BY MR. MAINLAND:

11 Q Do you know if Mr. Marek still  
12 testifies in securities cases?

13 A I don't know.

14 Q Do you have any reason to believe he's  
15 ever testified again since those cases in 2013  
16 and 2014?

17 A I think he did testify after Deutsche  
18 Bank in one case, but, you know, you're spending  
19 most of your time asking me about someone else.  
20 So -- and I'm not intimately familiar with  
21 everything that Mr. Marek has done and has  
22 not -- or has not done.

23 Q Is Financial Markets Analysis still in  
24 business?

25 A I believe it is, but I don't know.

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1 Q And you're now at Caliber Advisors as  
2 you mentioned; correct?

3 A Correct, yes.

4 Q What is Caliber Advisors?

5 A Caliber Advisors is primarily an  
6 evaluation firm. And so we do a lot of  
7 valuation for reporting purposes. We also do  
8 litigation. My focus has been on litigation. I  
9 spent most of my time on litigation, on  
10 specifically securities litigation.

11 Q How many people are employed there?

12 A We have about a dozen individuals.

13 Q And you said you've been working -- I  
14 don't want to put words in your mouth. Did you  
15 say you were working primarily on securities  
16 litigation?

17 A Correct, yes.

18 Q That's accurate?

19 A Yes.

20 Q During your entire career, how many  
21 times have you provided litigation consulting  
22 services in securities class actions? And let  
23 me be clear in the question. That would be  
24 inclusive of when you're in a consulting role  
25 and a testifying role.

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1 A So we're talking about effectively a  
2 quarter of a century.

3 Q That's fine.

4 A Yes.

5 Q Is it 100 cases?

6 A Oh, much more.

7 Q Much more?

8 A Hundreds of cases.

9 Q Hundreds of cases?

10 A Yes, many, many hundreds of cases.

11 Q What proportion of that were you  
12 serving as a testifying expert?

13 A It would be a small fraction of that.  
14 Every time I've testified, by the way, is on my  
15 C.V. and I think there's 35, 40 cases here. And  
16 then there are other cases where I would have  
17 submitted a report but I would not be deposed.

18 Q I'm glad you mentioned that because  
19 we've identified a substantial number of cases  
20 in addition to what is listed in your C.V. where  
21 you were -- where you submitted an expert  
22 report.

23 A Right.

24 Q Why are those cases not included in  
25 your C.V.?

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1 A The C.V. is -- only includes cases  
2 where I've testified at deposition, trials or  
3 arbitration.

4 Q Why did you draw that line?

5 A I did not draw that line.

6 MR. ZOHRABIAN: I'm going to caution  
7 you to the extent it involves communication  
8 with attorneys, not to disclose that.

9 BY MR. MAINLAND:

10 Q Were your attorneys involved in  
11 preparing your C.V.?

12 A No.

13 Q So I'll repeat the question. Why did  
14 you draw the line between cases in which you  
15 testified at deposition and cases in which you  
16 did not but you nevertheless submitted an expert  
17 report?

18 A My understanding is that there is a  
19 rule where you have to provide that information  
20 for, I believe it is, four years. I included  
21 four my whole career. But my understanding is  
22 that that is a rule.

23 Q Your understanding is that the  
24 requirements of disclosing that is limited to  
25 cases in which you've orally testified?

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1 MR. ZOHRABIAN: I'm just going to  
2 instruct you to the extent your answer  
3 depends on communications you have had with  
4 an attorney, not to disclose any attorney  
5 communications with you.

6 THE WITNESS: Yes, I mean, this is  
7 something I've put together and my  
8 understanding is that there is some sort of  
9 a rule in terms of what is required to be  
10 disclosed and I follow those rules as I  
11 understood them to be.

12 BY MR. MAINLAND:

13 Q Do you recall the Ryan v. Flowserve  
14 case?

15 A Yes.

16 Q And that was a case in Texas; right?

17 A Correct, yes.

18 Q You testified in that case; right?  
19 That's listed on your C.V.?

20 A That's correct, yes.

21 Q And there the court criticized your  
22 opinion and denied class certification; right?

23 MR. ZOHRABIAN: Objection to form.

24 THE WITNESS: The District Court  
25 criticized my loss causation standard. That



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1 was then appealed and reversed.  
2 BY MR. MAINLAND:

3 Q So the loss causation standard you  
4 used in that case at the District Court level  
5 was a true financial condition theory; right?

6 A That is a word that was introduced by  
7 defendants to characterize what I had plainly  
8 written. What I had written in my view is  
9 indistinguishable from what the Fifth Circuit,  
10 the appellate court wrote in terms of what the  
11 loss causation standard is.

12 So what I did after that was to  
13 instead of trying to put something in my own  
14 words, I now just quote the Flowserve, the  
15 appellate court opinion, so that attorneys  
16 cannot try to characterize it as defendants did  
17 in Flowserve.

18 Q So you mentioned that the Fifth  
19 Circuit reversed the decision of the District  
20 Court; right?

21 A Correct, yes.

22 Q Did you review that reversal of the  
23 District Court's opinion as an endorsement of  
24 the theory that you had advanced at the District  
25 Court level?

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1 A I viewed -- I was concerned about the  
2 loss causation standard. And there's language  
3 in that opinion that in my view -- and people  
4 may disagree, in my view was exactly what I was  
5 trying to communicate with my loss causation  
6 standard that was criticized by the District  
7 Court.

8 And in order -- and going forward, I'm  
9 using that. So I think that the appellate court  
10 and I were in agreement in terms of the loss  
11 causation standard and we were in disagreement  
12 with the District Court.

13 Q Are you qualified to interpret that  
14 opinion?

15 MR. ZOHRABIAN: Objection to form.  
16 BY MR. MAINLAND:

17 Q You're not a lawyer; right?

18 A I'm not the lawyer. What I try to do  
19 is to put everything out there in terms of what  
20 I do. So when I put -- so when I do something,  
21 an analysis of loss causation, for instance, I  
22 provide the court with my standard so that the  
23 court can look at it and they can say, yes, that  
24 is consistent with the law or that is  
25 inconsistent with the law.

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1 That's what I do.

2 Q So did you -- sorry, go ahead.

3 A So when I find -- when I'm trying to  
4 communicate something and I see what I'm trying  
5 to communicate be distorted, that's on me.

6 I haven't been able to write it  
7 correctly. So when I see an appellate court  
8 communicate it exactly what I was trying to  
9 communicate, then I take that language and I use  
10 that instead because that is what I was trying  
11 to say -- the loss causation standard in  
12 Flowserve is what I was trying -- what my  
13 understanding of the loss causation standard in  
14 Flowserve is what I was trying to communicate  
15 all along.

16 Q So your understanding is that the  
17 Fifth Circuit's opinion in that case endorsed  
18 exactly what you were trying to communicate; is  
19 that fair?

20 A It was --

21 MR. ZOHRABIAN: Sorry, excuse me.  
22 Objection to form.

23 THE WITNESS: The language in that  
24 opinion relating to the disclosure, what  
25 should be disclosed, there may be other

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1 issues relating to loss causation, but in  
2 terms of the information that needed to be  
3 disclosed, I believe the term -- what they  
4 wrote was it's the relevant truth obscured  
5 by the misrepresentations.

6 That is what I was trying to  
7 communicate. That little portion there that  
8 directly related to what I was trying to  
9 communicate I believe is exactly the same  
10 that I was trying to communicate, yes.

11 BY MR. MAINLAND:

12 Q And you premised that on your own  
13 reading of the opinion or what you were advised  
14 that by counsel?

15 MR. ZOHRABIAN: I don't want you to  
16 get into any communications you had with  
17 counsel.

18 MR. MAINLAND: I'm not asking for any  
19 communication. I'm just asking yes or no,  
20 were you advised that by counsel.

21 MR. ZOHRABIAN: And that is going to  
22 assume that --

23 MR. MAINLAND: It's just the subject  
24 matter of the discussion. Okay. I'll  
25 rephrase it.

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1 Q I'm not asking if any advice was given  
2 to you. Did you discuss the Fifth Circuit's  
3 opinion with your counsel?

4 A I'm sure I've discussed the opinion  
5 with all sorts of different attorneys. However,  
6 in terms of me picking out that language and  
7 using it my subsequent report, that is something  
8 that I have done.

9 Q Have you ever been excluded on Daubert  
10 grounds?

11 A No.

12 Q Are there any other cases in which  
13 your opinion was criticized?

14 A Not that I can think of.

15 Q How much of your income derives from  
16 litigation consulting?

17 A I would say I probably spend  
18 80 percent of my time on litigation consulting  
19 and that would result in probably about  
20 80 percent of my income being related to  
21 litigation consulting.

22 Q And at Caliber, how are you  
23 compensated?

24 A Based on my projects. So I am a  
25 managing director, so it's almost -- so it's

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1 based on the money that I bring out less  
2 whatever the expenses are and whatever is left  
3 over is mine.

4 Q So if you're retained in a new matter,  
5 are you receiving all of the revenue that comes  
6 from that matter less the expenses that you just  
7 referenced?

8 A Right. I mean, yes. There will be  
9 expenses and so the profits would be my profits,  
10 yes.

11 Q What are the expenses?

12 A Oh, there's office expenses, there are  
13 expenses of individuals who work on the cases,  
14 so there's a lot of -- there is a lot of  
15 expenses relating to that. But whatever is left  
16 over, that goes to me.

17 Q And what is the remaining 20 percent  
18 of your income?

19 A The 20 percent of my income would be  
20 where I engage in other type of projects  
21 relating to being a securities analyst.

22 So that would not relate to securities  
23 litigation.

24 Q And those you get paid on a  
25 project-by-project basis?

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1 A A lot of that will be -- it's not  
2 consulting necessarily. So it will be based on  
3 effectively how profitable the project is that I  
4 am working on, particularly if I take an equity  
5 stake in the company or something like that.

6 Q Is it fair to say that the Robbins  
7 Geller firm is an important client to you?

8 A Yes.

9 Q They've retained you dozens of times?

10 A That's correct.

11 Q Are they your most important client?

12 MR. ZOHRABIAN: Objection to form.

13 THE WITNESS: Yes.

14 MR. ZOHRABIAN: Grant, we've been  
15 going for a little over an hour, so whenever  
16 is a natural break for you.

17 MR. MAINLAND: Yes, very close. Let's  
18 push through to a natural stopping point, if  
19 that's okay.

20 THE WITNESS: Sure.

21 BY MR. MAINLAND:

22 Q Have you ever concluded in --  
23 you've -- withdrawn.

24 You've testified numerous times in  
25 securities cases; correct?

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1 A That's correct, yes.

2 Q Have you ever concluded in one of  
3 those cases that a market for the shares in  
4 question was inefficient?

5 A You are talking about the cases I've  
6 testified in?

7 Q Testified or consulted in, any  
8 securities case where you've been retained to  
9 provide litigation consulting.

10 A Yes.

11 Q You've concluded that the market was  
12 inefficient?

13 A Yes.

14 Q What kind of securities were at issue  
15 in those cases?

16 A Equity securities, publicly-traded  
17 securities.

18 Q So have you filed an expert report in  
19 which your opinion was that the securities that  
20 were the subject of the lawsuit were treated  
21 inefficiently?

22 A Not an expert report that has been  
23 filed with the courts, no.

24 Q Is that because in the cases where you  
25 determined that the market was inefficient, you

declined to submit a report?

A No.

Q So can you flush out for me the situation in which you were engaged to opine on market efficiency and concluded that the market was inefficient?

A It has not gotten to that -- well, if I do so when I'm hired by plaintiffs, they are not going to have me submit a report to the court saying that the market is inefficient.

Q Has that happened -- go ahead.

A So we can produce a side because those are kind of irrelevant.

I have had -- when working for defendants, if that is an issue, I have not had a case that has gone to the point of class certification where the -- I would need to write a report.

Q I guess what is I'm asking is simpler. Have you ever been engaged by a plaintiff's law firm that said we would like to -- we would like you to opine on market efficiency and you did some analysis and answered to them, I can't in good faith say that this market is efficient, it just isn't?

MR. ZOHRABIAN: Objection to form.

THE WITNESS: I don't endorse that characterization, but I have been looking at cases and looked at cases that in my opinion have not been efficient and I've communicated that to attorneys, but, you know --

BY MR. MAINLAND:

Q That's why I was asking. You did --

A Your characterization was a little bit more embellished in terms of --

Q I can reread the question. I don't know if it's very embellished.

A It has been more informal than anything else. It hasn't been like a formal request, write a report and then I've come back and said, well, you know, I've written the report and now it's -- and I think it's inefficient.

It has been more in terms of perhaps preliminary stages where I've been asked, you know, well, do you think this is efficient or is it not efficient and so on.

And I have pointed out areas where it may fail to meet the Cammer factors.

Q How many times have you pointed out those areas?

MR. ZOHRABIAN: I'm just going to caution you, Bjorn, I don't want you to get into the specifics of any case. At a high level of generality, this is okay but to the extent you're going to delve into the specifics, I'm going to instruct you not to answer.

THE WITNESS: It probably happened probably half a dozen times.

BY MR. MAINLAND:

Q Do you accept the possibility that shares traded on a national stock exchange may trade in an inefficient market?

MR. ZOHRABIAN: Object to form.

THE WITNESS: It is possible. In my opinion I think that you can -- I think you always should allow for that possibility.

BY MR. MAINLAND:

Q But you've never found it to be the case in a written report or in any testimony that you've given in a securities case; right?

A No. I think that most of the -- most of the cases where I have provided an opinion

the Cammer factors have been satisfied and that's far and beyond, in my view, what is needed to demonstrate that the market is efficient in a reliance context.

Q Was it your expectation going into this lawsuit that SQM's American depository shares traded efficiently because they are listed on the New York Stock Exchange?

A Not because it was -- necessarily because it was listed on the New York Stock Exchange, but because it was substantial volume, because there was substantial analyst following and because there was substantial institutional holding.

Q We can talk about -- I wasn't really asking about the Cammer factors. Trust me, we'll get to the Cammer factors.

I just mean literally the -- you must have known fairly early on that the shares at issues in this lawsuit are listed in the NYSE, right, before you did any Cammer analysis?

A Correct. And it was a big company, it was listed on the New York Stock Exchange and that would be a good indication that most likely this is a stock that traded in an efficient

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1 market.

2 Q But you're aware that the fact of  
3 listing on a national stock exchange is not  
4 dispositive of that question; right?

5 MR. ZOHRABIAN: Object to form.

6 THE WITNESS: No, I would want to  
7 review the Cammer factors first.

8 BY MR. MAINLAND:

9 Q Just to be clear, the answer was no,  
10 but I think you were agreeing with me? You  
11 agree -- let me ask the question more simply.

12 As a matter of legal principle, is the  
13 fact that shares are listed on the New York  
14 Stock Exchange dispositive of the market  
15 efficiency question?

16 MR. ZOHRABIAN: Objection to form.

17 THE WITNESS: I'm sorry, legal  
18 principle?

19 BY MR. MAINLAND:

20 Q Yes. You're not opining on that?

21 A I'm -- no, I don't think that -- I  
22 think that trading on the New York Stock  
23 Exchange is one indication that one may want to  
24 consider. It's more likely than not that it's  
25 traded in an efficient market if it's traded on

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1 the New York Stock Exchange. But it would not  
2 be sufficient for me at least to opine that the  
3 market was efficient.

4 Q I'm almost at a stopping point. So  
5 unless you just really need to stop, I'm very  
6 close.

7 In terms of your publications, you  
8 listed one publication in your C.V. from Law360  
9 from a few years ago that was relating to  
10 Halliburton decision. Is that the entirety of  
11 your published writing?

12 A That's correct, yes. I didn't write  
13 the heading, but I did write the article.

14 Q That's the only article that you've  
15 published?

16 A Correct.

17 Q You've not taught any university  
18 courses, have you?

19 A That's correct. I'm not an academic.

20 Q Have you taught any other kind of  
21 courses, professional courses or the like?

22 A There has been occasional CLE type  
23 courses. But other than that, no.

24 Q You've been on a CLE panel?

25 A No, I've taught -- law firms have

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1 asked me to come in to do presentations on the  
2 area of damages in securities cases.

3 Q Is it fair to say that your knowledge  
4 of finance and economics is essentially  
5 self-taught?

6 MR. ZOHRABIAN: Objection to the form.

7 THE WITNESS: No, it's not  
8 self-taught. It's based on my educational  
9 background. It is based on my CFA  
10 designation. It is based on my continuous  
11 participation in continuing education in  
12 CFA, continuing education program. And it  
13 is together with my interaction with a lot  
14 of other individuals in this space.

15 So it's not self-taught at all, no.

16 BY MR. MAINLAND:

17 Q Educationally, in terms of a formal  
18 degree, your master's in international business  
19 is the degree that educated you in finance and  
20 economics?

21 MR. ZOHRABIAN: Objection to form.

22 THE WITNESS: Of course. I mean, my  
23 emphasis at University of San Diego was  
24 finance. I was a research assistant to the  
25 investment professor at University of San

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1 Diego. I did investment research under his  
2 guidance for a year and a half.

3 You know, I participated in the CFA  
4 program and have done that for, you know,  
5 20 years. So the notion that it is  
6 self-taught is -- does not ring true.

7 I mean, in May, I was in Hong Kong at  
8 the big CFA conference together with  
9 another -- another 2,000 of my colleagues,  
10 we were listening to Nobel laureates like  
11 Daniel Kahneman talking about finance.

12 I mean, this is something that is not  
13 self-taught. It is -- this is my world, you  
14 know.

15 Q How much time did you spend preparing  
16 your report?

17 A I spent -- I think it was 98 and a  
18 half hours, if I recall correctly.

19 Q That's very precise.

20 A Yes.

21 Q Were you supported by a team?

22 A I had two individuals that assisted  
23 me.

24 Q And is the 98 and a half hours  
25 referring to hours that you personally worked on

1 it?

2 A Me personally.

3 Q And then you had two other individuals  
4 who assisted?

5 A Correct.

6 Q And how much time did they put into  
7 it?

8 A The first individual was Paul Hanouna  
9 and he put in, I believe, 24 hours. And then we  
10 had a junior staff member who put in probably  
11 less than ten hours.

12 Q I noticed a number of prior reports  
13 that were essentially identical in wording to  
14 the report that you have here. And I'm just  
15 wondering -- they are identical in wording but  
16 also in methodological approach, or at least  
17 they appeared that way to me.

18 When you drafted your report, did you  
19 just take a prior report and use that as a  
20 template and update it to the specifics of the  
21 new case that you're working on?

22 A Yes. What I try to do is to be  
23 consistent; in other words, I don't want to, you  
24 know, use a new methodology for each case  
25 because then you get accused of cherry-picking

1 methodologies.

2 So what -- the methodologies that I  
3 have used in this particular case is  
4 methodologies that I have used before in cases  
5 where courts have certified the class.

6 So I try to be as consistent with  
7 prior reports as I can understanding that there  
8 will always be some variability with different  
9 cases. The facts are always a little bit  
10 different.

11 MR. MAINLAND: Let's take a break.

12 VIDEOGRAPHER: This marks the end of  
13 media 1, Volume 1 in the deposition of Bjorn  
14 Steinholt. The time is 10:19, and we're off  
15 the record.

16 (Recess taken.)

17 VIDEOGRAPHER: This marks the  
18 beginning of media 2, Volume 1 in the  
19 deposition of Bjorn Steinholt. The time is  
20 10:36, and we're back on the record.

21 BY MR. MAINLAND:

22 Q Sir, what is an efficient market?

23 A An efficient market is one that  
24 processes information efficiently.

25 Q You state in Paragraph 10 of your

1 report -- why don't you take a look at that,  
2 give us a slightly more precise answer or  
3 definition as it were.

4 It says: An efficient market is one  
5 that efficiently processes new and material  
6 information. In an efficient market, new and  
7 material information is quickly incorporated  
8 into the stock price as different investors buy  
9 and sell based on their respective evaluations  
10 of the new information disclosed.

11 Do you see that?

12 A Yes.

13 Q Is that what you mean by an efficient  
14 market as we discuss it today?

15 A Yes. I mean, this is a part of a  
16 whole section about market efficiency that I  
17 have, yes.

18 Q Economists posit different forms of  
19 market efficiency; correct?

20 A Typically when you say different forms  
21 of market efficiency, you typically refer to the  
22 information that is incorporated into the stock  
23 price. In other words, the weak form, the  
24 semi-strong form and the strong form, that all  
25 relates to whether or not you look at historical

1 stock price movements, whether or not you look  
2 at all information, corporate -- all  
3 publicly-available information or all  
4 information in the universe.

5 So that's typical -- I don't know if  
6 that's what you're referring to, but that  
7 relates to the information. It's not  
8 necessarily a different definition of the  
9 process of incorporating that information.

10 Q Do you agree with Professor Fama that  
11 weak form efficiency tests how well do past  
12 returns affect future returns?

13 A Yes, that's what the weak form relates  
14 to.

15 Q And do you agree with Professor Fama  
16 that the relevant information for weak form  
17 efficiency is just historical prices?

18 A Yes, it looks at historical prices to  
19 try to predict the future and to see whether or  
20 not that is doable or not.

21 Q And in a weak form efficient market,  
22 it's not doable; correct?

23 A If it's efficient, you cannot set up  
24 arbitrage strategies to earn excess returns.  
25 You know, there are hedge funds that, of course,



1 focus on making money on that.

2 So somebody may make money on it, but  
3 on average, you're not going to make money on  
4 consistently.

5 Q Do you agree with Professor Fama that  
6 semi-strong form efficiency tests how quickly do  
7 security prices reflect public information  
8 announcements?

9 A Yes, I mean, he came up with the  
10 definition, so --

11 Q But you agree with -- that that's what  
12 semi-strong form means, that it quickly  
13 incorporates all publicly-available information?

14 A Yes. He came up -- he's the one who  
15 termed -- came up with the term "market  
16 efficiency." He's the one who talked about  
17 these different pieces of information. So, yes,  
18 he gets to define it, he's the one who defines  
19 it.

20 Q Semi-strong form efficiency tests for  
21 whether share prices reflect all  
22 publicly-available information, correct, not  
23 just some publicly-available information?

24 MR. ZOHRABIAN: Objection to form.

25 THE WITNESS: It relates to all

1 publicly-available information, yes.

2 BY MR. MAINLAND:

3 Q And that would include historical  
4 prices; correct?

5 A Yes, all publicly-available  
6 information will include everything, it will  
7 include historical prices and it will include  
8 new information that's being disclosed by the  
9 company, yes.

10 Q So weak form efficiency is a  
11 prerequisite to semi-strong form efficiency;  
12 correct?

13 A Yes, you can say that.

14 Q And then strong form efficiency tests  
15 whether all information, not just all  
16 publicly-available information, is incorporated  
17 in the share price; right?

18 A That's correct, that's how it is  
19 defined, yes.

20 Q As a practical matter, is that  
21 possible?

22 MR. ZOHRABIAN: Objection to form.

23 THE WITNESS: As a practical matter is  
24 that possible? If insiders started to buy  
25 an selling, then the insider -- that

1 information that's known by the insiders may  
2 become reflected in the stock price.

3 But typically we do not believe that  
4 the markets meet that definition.

5 BY MR. MAINLAND:

6 Q Would you agree that strong form  
7 efficiency is essentially a theoretical  
8 benchmark, not a practical reality?

9 MR. ZOHRABIAN: Objection to form.

10 THE WITNESS: They are all theoretical  
11 in that sense. I mean, you don't -- I mean,  
12 the notion that stock prices reflect all  
13 publicly-available information, nobody  
14 literally believes that to be true. It's an  
15 extreme hypothesis. And when I say that, I  
16 am actually directly quoting Eugene Fama.

17 So the definitions that he has come up  
18 with in terms of a perfectly efficient  
19 market, nobody believes them to be literally  
20 true. With respect to the strong form,  
21 however, unlike the weak and the semi-strong  
22 form, we don't believe -- that doesn't even  
23 approximate the truth.

24 The weak form and the semi-strong  
25 form, the reality approximates the extreme

1 null hypothesis.

2 BY MR. MAINLAND:

3 Q Your report doesn't distinguish  
4 between these three theoretical constructs.  
5 When you refer to market efficiency in your  
6 report and today, what form of efficiency do you  
7 have in mind?

8 A Well, I'll look at all  
9 publicly-available information. Even though in  
10 the context of reliance, what is important is  
11 whether or not the misrepresentations are  
12 reflected in the stock price.

13 Q We'll return to that in a bit. But to  
14 simplify, are you using the semi-strong form  
15 efficiency when you refer to market efficiency  
16 in this report and in your testimony today?

17 A In terms of information that I am  
18 focusing on, I'm focusing on all information, so  
19 that would be most consistent with the  
20 semi-strong form.

21 Q You mean all publicly-available  
22 information?

23 A Correct. I'm looking at  
24 publicly-available information, I'm not looking  
25 at nonpublic information.

1 Q And the ultimate question you're  
2 trying to answer is whether the shares rapidly  
3 incorporated all publicly-available information;  
4 correct?

5 A Well --

6 MR. ZOHRABIAN: Objection to form.

7 THE WITNESS: Well, what I'm trying to  
8 determine based on the factors provided by  
9 the court is whether or not they meet those  
10 factors. So whether or not market  
11 efficiency in a reliance context has been  
12 established.

13 BY MR. MAINLAND:

14 Q You're looking to whether the market  
15 prices during the class period quickly change to  
16 reflect new and material information concerning  
17 SQM as such information became available?

18 A That's correct, yes.

19 Q What constitutes new information?

20 A New information is information that  
21 has not been disclosed before.

22 Q And that could be because it did not  
23 exist or because it was not publicly known or  
24 both?

25 A Regardless -- regardless of the

1 reason, as long as it wasn't known before or  
2 known publicly before and it had not been  
3 disclosed before, it's new information.

4 Q What does material information mean?

5 A There are different definitions of  
6 materiality. Of course, there is a legal  
7 definition relating to what reasonable investors  
8 would have wanted to consider prior to making an  
9 investment decision.

10 Typically something that's material is  
11 some -- for a securities analyst is something  
12 that impacts the future cash flow and thereby  
13 impacts the value of the company.

14 Q And is that -- which meaning of  
15 materiality do you have in mind when you use the  
16 word "material" in your report?

17 A I think they are trying to say the  
18 same thing and -- but I'm looking at something  
19 that impacts -- would impact the future cash  
20 flows and impact the stock price.

21 But I think it's the same, that is,  
22 what a reasonable investor would want to know  
23 prior to making an investment decision. I don't  
24 think there's necessarily a conflict, it's just  
25 two different ways of looking at it.

1 Q That's because what the reasonable  
2 investor would want to know is whether the  
3 present value of future cash flows has been  
4 impacted by the information?

5 MR. ZOHRABIAN: Objection to form.

6 THE WITNESS: It is because a  
7 reasonable investor is concerned with the  
8 value. And the value is the present value  
9 of the future cash flows and the riskiness  
10 of these cash flows.

11 BY MR. MAINLAND:

12 Q Your report refers to efficient  
13 markets as quickly incorporating  
14 publicly-available information. What do you  
15 mean by quickly?

16 A Quickly relates -- by the way, the  
17 time it takes depends on the complexity of the  
18 information. So complex information may take  
19 longer time to be incorporated than something  
20 that's less complex.

21 That said, what we are looking at is  
22 whether or not there is an opportunity to make  
23 excess return, for regular investors to make  
24 excess returns.

25 So if it's so quick that class

1 members, regular class members would not be able  
2 to trade on the information and make profit from  
3 that prior to it being reflected in the stock  
4 price, then it's slow and if not, it's quick.

5 Q Isn't it true that open and developed  
6 markets quickly incorporate and reflect new  
7 information as it becomes available?

8 MR. ZOHRABIAN: Objection to form.

9 THE WITNESS: Generally that's true,  
10 absolutely.

11 BY MR. MAINLAND:

12 Q And as it becomes available, that  
13 sounds to me like more or less instantaneously.  
14 Is that generally what you mean by quickly?

15 MR. ZOHRABIAN: Objection to form.

16 THE WITNESS: No, not necessarily. I  
17 mean, it's not instantaneous. You can go  
18 through a process -- particularly if the  
19 information is unclear, you can have  
20 something -- you may have one group of  
21 investors who are looking at it one way and  
22 trade quickly and then you have another  
23 group of investors that may take a little  
24 bit longer time. They want to double check  
25 and things of that nature.



1 And so ultimately, it can take a  
2 longer period of time particularly if the  
3 information is unclear and particularly if  
4 there are conflicting information so that  
5 investors do not have a clear understanding  
6 of the economic implications of the  
7 information.

8 BY MR. MAINLAND:

9 Q So it's not as it becomes available?

10 MR. ZOHRABIAN: Objection to form.

11 THE WITNESS: As it becomes available  
12 but not necessarily instantaneous because  
13 you have to analyze the information.

14 BY MR. MAINLAND:

15 Q Well, at any given time, multiple  
16 investors have different views of the  
17 information that's in the market; correct?

18 A Yes, absolutely.

19 Q And so the fact that different people  
20 are going to spend more time or less time  
21 analyzing something does not -- I mean, one  
22 person could take two weeks to analyze the  
23 implication of something. That does not mean  
24 that information did not enter the stock price  
25 for two weeks, does it?

1 A No. What I'm saying is for it to be  
2 fully reflective, you would have to -- there is  
3 a price discovery mechanism where you have  
4 shares being traded by different types of  
5 investors. And ultimately it will find its  
6 equilibrium and that can take some time.

7 Q What do you mean by some time?

8 A We're talking about short periods of  
9 time. In fact, my analysis looks at it on a  
10 daily basis, so -- but I don't look at less than  
11 a day. I'm just looking at it on a one-day  
12 basis.

13 Q But one trading day is your benchmark;  
14 is that fair to say?

15 MR. ZOHRABIAN: Objection, form.

16 THE WITNESS: That's what I'm using.  
17 Sometimes when information becomes  
18 disclosed, there are subsequent related  
19 disclosures, so -- that clarify the first  
20 disclosure.

21 So it could take a longer period of  
22 time, more than a day, for everything to be  
23 fully incorporated into the stock price.

24 But that does not necessarily mean  
25 that, you know, the market is efficient.

1 It's just that you have small little  
2 disclosures on the way that kind of  
3 clarifies the first disclosure. It's not  
4 necessarily people sitting and twiddling  
5 their thumb for an entire day before they  
6 start trading on it. It's not just not as  
7 clear-cut in some instances.

8 BY MR. MAINLAND:

9 Q The clarifying disclosure that you're  
10 referencing, that doesn't mean that the prior  
11 information was not in the stock price, does it?

12 A Well, the prior information may be  
13 unclear. And so it may take longer period of  
14 time to get a full understanding of what the  
15 economic implications is of the initial  
16 disclosure.

17 So if you have clear disclosures,  
18 typically it will happen really quickly. If  
19 there's ambiguity with respect to what the  
20 disclosure means, then it can take longer time.

21 Q Semi-strong efficiency does not mean  
22 that the share price rapidly incorporates all  
23 clear publicly information, does it?

24 MR. ZOHRABIAN: Objection to form.

1 BY MR. MAINLAND:

2 Q You're not limiting it to that  
3 particular kind of information, are you?

4 MR. ZOHRABIAN: Same objection.

5 THE WITNESS: Of course not.

6 BY MR. MAINLAND:

7 Q A lot of information is unclear;  
8 right?

9 A Yes, that's what I'm explaining to  
10 you.

11 Q Okay. So I just want to --

12 A I'm explaining exactly the concept  
13 that you're asking about.

14 Q Well, I'm trying to understand because  
15 you seem to be saying if information is unclear,  
16 it may take more than a day for that information  
17 to be reflected in the share price. Why is the  
18 lack of clarity relevant as to whether it's  
19 impounded in the stock price?

20 A Because the clarity can come  
21 subsequent to the initial disclosure.

22 Q But does that mean that prior  
23 information was not in the stock price?

24 A No. I mean, the unclarity will be --  
25 but in terms of if you have a disclosure and

1 it's not clear, what I was saying was that the  
2 subsequent disclosures, you may want to look at  
3 it from the point when the first disclosure is  
4 made until the clarity has been made.

5 You may want to combine multiple days  
6 in order to determine whether or not -- what  
7 impact on the stock price was.

8 Q That's not what you did here, is it?

9 A Oh, no. I'm just -- we're talking  
10 about general concepts here. I was looking at  
11 one day, and that was it.

12 Q You were looking at days, just to get  
13 the terminology straight, where information was  
14 disclosed after the market closed on a given day  
15 and then you looked at what happened to the  
16 share price the next trading day; is that  
17 correct?

18 MR. ZOHRABIAN: Objection to form.

19 THE WITNESS: First of all, I looked  
20 at every day. And if I was looking at a  
21 particular event that happened after the  
22 market was disclosed, then I would look at  
23 the next trading day.

24 BY MR. MAINLAND:

25 Q Well, so for the -- we'll get to the

1 financial release date tests in a little bit.

2 But is it fair to say that for those 19  
3 financial release dates, I think you used the  
4 term effective trading -- "effective trading  
5 date," is that right, or effective date?

6 A I don't know what the terminology  
7 would be. But if it is disclosed after the  
8 close of trading, then you would look at the  
9 following trading day.

10 Q And that's what you did with the  
11 financial release dates here; right?

12 A That's correct.

13 Q Would it be -- withdrawn.

14 If information is not incorporated in  
15 the share price more or less instantaneously,  
16 isn't it the case that there would be arbitrage  
17 opportunities for riskless gains?

18 MR. ZOHRABIAN: Objection to form.

19 THE WITNESS: If you have information  
20 that's not quickly incorporated into the  
21 stock price, then there's an opportunity for  
22 investors to get in there and arbitrage that  
23 information.

24 BY MR. MAINLAND:

25 Q You've changed the word -- I had said

1 instantaneously and you changed it to quickly.  
2 That's what I'm trying to understand.

3 If quickly does not mean  
4 instantaneously, then aren't there arbitrage  
5 opportunities for riskless gains?

6 A Yes, there always are, in this stock  
7 and in any stock. The notion that an efficient  
8 market means that new publicly-available  
9 information is instantaneously reflected in the  
10 stock price, it's the very extreme new  
11 hypothesis that Eugene Fama says is not  
12 literally true.

13 And this is what has led to what we  
14 call the Grossman-Stiglitz paradox and that is  
15 that the informationally efficient market is an  
16 impossibility. They wrote a paper in -- I think  
17 it was 1980.

18 So people understand that the market  
19 is not perfectly efficient. People understand  
20 that stock prices do not instantaneously reflect  
21 new information. People understand that it  
22 takes time. People understand that, yes, of  
23 course there are arbitrage opportunities.

24 If there were not arbitrage  
25 opportunities, nobody would try to arbitrage

1 anything because nobody could make money of it.

2 Of course there's money to be made.  
3 The thing is whether or not for regular  
4 investors, if they can engage in this and  
5 consistently outperform the market.

6 What I'm pointing out in this  
7 Section 3 here is that all of the research done  
8 on this is that even actively managed funds are  
9 unable, for the most part, to outperform the  
10 market.

11 So the market for actively traded  
12 stocks here in the United States on the New York  
13 Stock Exchange and the NASDAQ is extremely  
14 efficient.

15 Q What are American depository shares?

16 A They are depository receipts that are  
17 foreign shares that are deposited to a  
18 depository bank. And they then -- the bank then  
19 issues shares so they can be traded in this case  
20 on the New York Stock Exchange.

21 Q For ease of reference, I'll refer to  
22 them as ADS today. Is that okay?

23 A That's fine.

24 Q And the claims in this case are  
25 premised entirely on SQM's ADS; right?

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1 A That's correct, yes.  
 2 Q And your opinion as to market  
 3 efficiency in this case relates exclusively to  
 4 SQM's ADS; right?  
 5 A That's correct, yes.  
 6 Q Are you aware that SQM has common  
 7 stock listed on the Santiago Stock Exchange?  
 8 A Yes, I am.  
 9 Q You haven't studied the efficiency of  
 10 that market; correct?  
 11 MR. ZOHRABIAN: Objection, form.  
 12 THE WITNESS: In this report I focus  
 13 on the ADS's traded on the New York Stock  
 14 Exchange. I do make some reference to  
 15 analysts coverage in Chile. Obviously when  
 16 you have analyst coverage, there are some  
 17 consumers of that and that's institutional  
 18 investors.  
 19 And I also have an analysis of the  
 20 trading of SQM ordinary shares in Chile and  
 21 on the New York Stock Exchange to  
 22 demonstrate that they track each other very,  
 23 very closely.  
 24 BY MR. MAINLAND:  
 25 Q I'll get to that in a minute. But

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1 have you formed a general opinion as to the  
 2 efficiency of the common stock on the Santiago  
 3 Stock Exchange?  
 4 MR. ZOHRABIAN: Objection to form.  
 5 THE WITNESS: I believe the price is  
 6 efficient in the Chilean market, but it's  
 7 not an opinion that I have -- I would have  
 8 wanted to do a little bit more analysis and  
 9 support it more if that was one of the  
 10 opinions that I put in my report. It's not  
 11 part of my opinion in this case.  
 12 BY MR. MAINLAND:  
 13 Q Is it relevant to the analysis of the  
 14 ADS?  
 15 MR. ZOHRABIAN: Objection to form.  
 16 THE WITNESS: I think the fact that it  
 17 has analyst coverage, as I mentioned in the  
 18 report, and for the reasons that I just  
 19 stated, obviously analysts have -- there are  
 20 consumers of that research and the fact that  
 21 they track very, very closely is, in fact,  
 22 relevant to determining market efficiency of  
 23 the ADS's traded on the New York Stock  
 24 Exchange. And I believe it supports it.  
 25

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1 BY MR. MAINLAND:  
 2 Q If the market for SQM's common stock  
 3 listed on the Santiago Stock Exchange is not  
 4 efficient, would the market for SQM's ADS on the  
 5 New York Stock Exchange be efficient?  
 6 MR. ZOHRABIAN: Objection to form.  
 7 THE WITNESS: Again, I would have to  
 8 look into that in greater detail, because  
 9 you would have to try to figure out what do  
 10 they track. So that's something you would  
 11 need to look at it in greater detail.  
 12 BY MR. MAINLAND:  
 13 Q I'm going to direct you to  
 14 Paragraph 30 of your report. Are you there?  
 15 A Yes.  
 16 Q So in Paragraph 30, you state in the  
 17 really the final sentence on that page it says:  
 18 Consequently, it is possible to observe whether  
 19 or not the two securities that the U.S. ADS's  
 20 and the Chilean ordinary shares traded in tandem  
 21 consistent with arbitrage orders being present  
 22 and eliminating discrepancies between the  
 23 respective market prices.  
 24 And then you -- in the next sentence  
 25 you say: During the class period, I determined

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1 that the correlation between the price changes  
 2 in the U.S. ADS's and the Chilean ordinary  
 3 shares, after adjusting for the exchange rate  
 4 between the U.S. dollar and Chilean peso, was  
 5 approximately 92 percent.  
 6 Does correlation mean that the two  
 7 securities traded in tandem?  
 8 MR. ZOHRABIAN: Objection to form.  
 9 THE WITNESS: That's what -- yes, if  
 10 you have a correlation of 100, it would be  
 11 perfectly in tandem.  
 12 BY MR. MAINLAND:  
 13 Q Can you describe the correlation  
 14 calculation that you ran?  
 15 A You want the formula?  
 16 Q However you see fit to describe it.  
 17 Is that what --  
 18 A So if you have 100 -- if it's positive  
 19 100 percent, that means that whenever it went up  
 20 by a dollar, the other security also went up by  
 21 a dollar. If it's negative 100 percent, then  
 22 it's the other way, right. So it's between one,  
 23 minus one and one.  
 24 So what you calculate is how much they  
 25 moved together.

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1 Q So 100 -- a value of 100 percent means  
2 that the two prices are perfectly correlated;  
3 correct?

4 A Correct.

5 Q So they truly move in tandem?

6 MR. ZOHRABIAN: Objection to form.

7 THE WITNESS: Right. But you have --  
8 I thought I had it in here. I mean, there  
9 is a reason why --

10 MR. ZOHRABIAN: If you need to, read  
11 the full paragraph -- sorry. If you want to  
12 look at the full paragraph to answer the  
13 question, you can feel free to do so.

14 THE WITNESS: Yes. If -- these would  
15 not ever be -- this would not ever be  
16 100 percent and the reason is because there  
17 are timing differences between the Chilean  
18 market and the U.S. market. You have  
19 different holidays in the two different  
20 markets and so there's a lot of reasons why  
21 it never would be 100 percent. The question  
22 is whether or not it's close to 100 percent.

23 In this case it's 92 percent and what  
24 I did, because I think it's more -- it kind  
25 of explains the point better, is to actually

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1 draw the graph and when you draw the graph,  
2 you can see that one is on top of the other.

3 MR. ZOHRABIAN: I'll just note for the  
4 record that the graph that was originally  
5 provided was in color and this does not look  
6 to be in color.

7 BY MR. MAINLAND:

8 Q You mentioned time zone differences.  
9 What is the time zone difference between New  
10 York and Santiago?

11 A As I sit here right now, I don't  
12 recall exactly, but I think that they have  
13 different daylight savings time and so I think  
14 it's one or two hours.

15 But that's one thing that one would  
16 look at.

17 Q Did you look at it when preparing your  
18 report?

19 A Yes, I looked at that when I was  
20 preparing my report. It's just not something  
21 that I have -- I mean, this deposition is one  
22 year after I prepared my report and I don't have  
23 that fresh in my mind.

24 Q You did look at it?

25 A Yes.

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1 Q What are the holiday differences?

2 A Well, they have different holidays.  
3 Labor Day is on May 1st, you know, things of  
4 that nature, you know, so you would not have  
5 those holidays that we have in the United  
6 States, they would not necessarily be there in  
7 Chile. So those would be differences.

8 Q Did you look at that in preparing your  
9 report?

10 A I looked at it, yes.

11 Q You determined what the specific  
12 holiday differences are?

13 A I know the holidays -- or I have the  
14 United States holidays, I know that they are  
15 different in Chile and that was the extent of  
16 what I did.

17 Q So you didn't figure out literally on  
18 how many days was the stock market closed in  
19 Chile but open in New York?

20 A No, I did not do that. Obviously  
21 there are some overlap, you know, Christmas and  
22 so on.

23 But no, I did not do that.

24 Q What is the cost of arbitrage?

25 A In order to do arbitrage, you had to

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1 monitor the security. The first thing that you  
2 do, you had to do -- you had to set up the  
3 analysis so you know when there is an arbitrage  
4 opportunity. So you had to monitor the  
5 security, so there's costs associated with that.

6 There's cost associated with trading,  
7 trading the security. And so you have to cover  
8 the cost of the trading and the cost of the  
9 monitoring in order to be economically  
10 incentivized to actually do the arbitrage.

11 Q Time zone differences, holiday  
12 differences, cost of arbitrage, are these things  
13 calculable in terms of their impact on the share  
14 price?

15 Why don't I withdraw that and restate  
16 it because I want to be a little more precise.

17 Are the time zone differences, the  
18 holiday differences and the cost of arbitrage  
19 calculable in terms of their impact on  
20 correlation between the Chilean shares and ADS?

21 MR. ZOHRABIAN: Objection, form.

22 THE WITNESS: You could do further  
23 analysis and additional analysis, yes.

24 BY MR. MAINLAND:

25 Q You say in your report that the

1 92 percent correlation is very close; is that  
2 right?

3 A I say that it's very close, but it is  
4 I think better to look at the picture and that  
5 probably illustrates better in terms of what the  
6 closeness actually is.

7 Q What is the benchmark for what  
8 constitutes very close?

9 A Well, I think that the picture tells  
10 the story. On my version here, I have one  
11 single line effectively, and that is because --  
12 well, what I literally had to do was to make --  
13 I think it was the red line, I made it a little  
14 bit wider so you could see that the blue line  
15 was in between the red line.

16 We're talking about very, very small  
17 little differences. So I characterize that as  
18 close.

19 MR. MAINLAND: I will state for the  
20 record, responding to Armen's point as to  
21 the color, I think that when it is in color,  
22 and I agree it's not in this particular  
23 exhibit, I think the spread between the two  
24 is actually a little clearer than it is in  
25 this particular graph that's in black and

1 white.

2 BY MR. MAINLAND:

3 Q In any event, set aside the graph.  
4 92 percent, is that what you expected?

5 A I expected it to be very, very high.  
6 I did not -- and I expected it not to be 100.  
7 So I expected it to be in the 90s, yes.

8 Q How low would the percentage need to  
9 go for you to be concerned as to whether there  
10 actually are arbitragers?

11 A Well, in this case, we are dealing --  
12 it's 92 percent of the difference. So let's say  
13 that the stock price goes up 50 cents, so  
14 92 percent then is -- so one goes up 50 cents,  
15 the other one goes up 46 cents. So there is a  
16 4 cent spread there that some arbitrage may be  
17 able to take advantage of, right.

18 But when you factor in the fact that,  
19 you know, the holidays -- by the way, the  
20 exchange rates, it's not on the closing day of  
21 the stock exchange either, so that's another  
22 timing issue.

23 So when you factor in all of these  
24 things, the 4 cents is the most you can make on  
25 the trade and that's very, very small. The

1 spreads in the olden days for trading common  
2 stocks on the NASDAQ, for instance, was  
3 25 cents -- 25 cents.

4 So to trade something and, you know,  
5 you can only pick up 4 cents, it doesn't seem to  
6 be a lot. But again, just to clarify, I'm not  
7 saying that nobody can make money doing  
8 arbitrage. In fact, looking at the graph, I  
9 think it's very clear, because they are so  
10 close, that some people are doing arbitrage  
11 here.

12 And it is probably as close as one  
13 would expect in order for it just to be  
14 profitable for them. That's what you would  
15 expect.

16 Q The one thing I did not hear in your  
17 answer is whether there is a specific percentage  
18 that would be a benchmark relevant to whether  
19 arbitragers are present sufficient to satisfy  
20 Cammer 3, I believe it is?

21 A No, there wouldn't be a specific  
22 benchmark. I think -- I mean, that is not what  
23 I have quantified here. I can talk about it in  
24 generalities and I think that this is -- I think  
25 the graph speaks for itself.

1 Q Your opinion is that the market for  
2 SQM's ADS traded in an efficient market on  
3 alternating days between the class period of  
4 time; right?

5 MR. ZOHRABIAN: Objection to form.

6 THE WITNESS: That's my conclusion,  
7 yes. Obviously I have not -- I don't have a  
8 section here discussing however many days  
9 there are, more than a thousand trading  
10 days. And although I have performed a  
11 statistical analysis of each day, I have  
12 not -- and I have looked at media and  
13 analysts reports, there is a lot of it  
14 during this period of time.

15 My general conclusion is that  
16 throughout the entire class period, which  
17 would include every day, the stock market  
18 was efficient.

19 BY MR. MAINLAND:

20 Q And the class period is from June 30,  
21 2010 through March 18th, 2015; right?

22 A Yes.

23 Q And that's about 56 months; correct?

24 A Correct, yes.

25 Q That's almost five years; correct?



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1 A That is almost five years, yes.  
 2 Q And do you know how many trading days  
 3 there were in the class period?  
 4 A Well, there's 250 trading days roughly  
 5 in a year, so in five years it would be 1250,  
 6 but it's a little bit less than that, so it's  
 7 probably slightly below 1200.  
 8 Q And that's -- I'll represent I counted  
 9 them, so the number is 1,187, so very close to  
 10 what you just said.  
 11 Have you ever analyzed market  
 12 efficiency over a class period of that duration?  
 13 A Yes.  
 14 Q And about how many times?  
 15 A I don't know. Probably a dozen times.  
 16 The one that comes to mind is HealthSouth. I  
 17 provide an opinion at class cert in HealthSouth  
 18 and the class was certified.  
 19 Q Would it surprise you to learn that  
 20 we've only been able to discover two cases where  
 21 the class period was longer than in this case?  
 22 A No, that wouldn't surprise me. Is  
 23 HealthSouth one of them?  
 24 Q That's a good question.  
 25 HealthSouth was 70 months and there

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1 efficiency.  
 2 It can also -- you may have a stock  
 3 and all of a sudden the stock declines and it  
 4 ends up being a penny stock and all of the  
 5 institutional investors and the analysts stop  
 6 covering the stock, so they kind of disappear.  
 7 And so it no longer meets the Cammer factors.  
 8 So there's different things that can  
 9 happen during -- or are more likely to happen  
 10 during a longer period of time.  
 11 Q Any number of those things could  
 12 happen in a shorter class period; right? You're  
 13 saying they are more likely simply by virtue  
 14 there are more days in a longer class period?  
 15 A Correct.  
 16 Q In your analysis of the direct  
 17 evidence of market efficiency -- so now I'm  
 18 referring to your event study -- you evaluated  
 19 19 earnings days and one day, March 18th, 2015,  
 20 for a total of 20 days; right?  
 21 A I did two different analyses. One was  
 22 on the -- all of the earnings releases during  
 23 the class period and that is the 19 days that  
 24 you referred to.  
 25 And I always look at the last day of

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1 was one other case that was 58 months.  
 2 A Okay.  
 3 MR. ZOHRABIAN: I'm sorry, did you say  
 4 HealthSouth or household?  
 5 MR. MAINLAND: HealthSouth.  
 6 Q Which is what you were saying too  
 7 Mr. Steinholt; right?  
 8 A Yes, I was the expert in that one.  
 9 Q Look, we've looked the vast majority  
 10 of the cases you worked on involved class period  
 11 of 25 months or less. I'm just representing  
 12 this to you.  
 13 A Right.  
 14 Q The average class period was about  
 15 14 months.  
 16 A Right.  
 17 Q Median class period was about nine  
 18 months and so those are much shorter time  
 19 periods. How, if at all, does the length of the  
 20 class period affect your analysis?  
 21 A It would affect -- it could affect it  
 22 if there is some systemic break in the market.  
 23 Sometimes what happens is that, you know, a  
 24 stock may get delisted and then the question  
 25 becomes, well, does that impact market

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1 the class period and -- to see whether or not  
 2 there is evidence that the stock market reacted  
 3 quickly to the disclosure of the alleged truth.  
 4 Q Nineteen plus one is 20; right?  
 5 A Yes.  
 6 Q I know I'm asking you a simple  
 7 question. I'm sure you know that.  
 8 A I'm just saying it's two different  
 9 analyses. I thought you kind of lumped it  
 10 into -- you may have thought it was one  
 11 analysis.  
 12 Q I'm literally just counting up dates  
 13 here. So 20 days out of 1,187 is less than  
 14 2 percent of the days, the trading days during  
 15 the class period?  
 16 A Yes.  
 17 Q You thought that was sufficient to  
 18 evaluate whether the market was efficient for  
 19 the SQM ADS during the entirety of the class  
 20 period; right?  
 21 A Actually, that's not the analysis I've  
 22 submitted mere. I have an analysis where I  
 23 looked at a lot of different factors. So this  
 24 is just one factor that I looked at.  
 25 And so my conclusion is based on all

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1 of the things that I have here. If you take one  
2 piece of it and you ask me, well, if you only  
3 have that piece of information, can you -- would  
4 you opine that the market was efficient, that  
5 may not be true because, you know, I would want  
6 to look at these other pieces as well.

7 Q Let me rephrase the question. You  
8 thought 20 days out of one hundred -- withdrawn.

9 You thought 20 days out of 1,187 was  
10 sufficient to evaluate whether there's direct  
11 evidence that SQM's ADS rapidly incorporated all  
12 publicly-available information during the  
13 entirety of the class period; is that fair?

14 MR. ZOHRABIAN: Objection to form.

15 THE WITNESS: No.

16 BY MR. MAINLAND:

17 Q Why not?

18 A The Cammer Factor 5, which is what  
19 you're referring to, started out by looking at  
20 market information. So I have an analysis where  
21 I render regression during the class period to  
22 determine whether or not market information was  
23 quickly incorporated into the stock price. And  
24 it's on -- let me provide you with a paragraph,  
25 it's in Paragraph 38.

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1 comfortable that Cammer Factor 5 was satisfied  
2 in this case.

3 Q You had 20 event dates; right?

4 MR. ZOHRABIAN: Objection to form.

5 THE WITNESS: I had -- I did more than  
6 that.

7 BY MR. MAINLAND:

8 Q That's not what I'm asking. I'm  
9 asking: How many event dates did you have?

10 A I looked at --

11 Q You already described all the other  
12 stuff you did. That's fine, I'm not disputing  
13 that, though I have some questions about that.  
14 But I'm literally just asking how many events  
15 dates did you have?

16 MR. ZOHRABIAN: Objection to form.

17 THE WITNESS: I had all of the 19  
18 financial releases and I had the last day of  
19 the class period, which adds up to 20.

20 BY MR. MAINLAND:

21 Q So you had 20 event dates, the answer  
22 is yes; right?

23 It's a very simple question and I  
24 don't know why you're fighting me on this. 19  
25 plus one is 20, 20 event dates. The answer is

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1 And I concluded that the market  
2 information was quickly incorporated into the  
3 stock price. I then looked at industry  
4 information. I had a peer group and I looked at  
5 that information. I regressed it against the  
6 SQM and I determined that industry information  
7 was quickly incorporated into the stock price.

8 I then -- then I come to the analysis  
9 that you're talking about. I looked at earnings  
10 releases and the reason I looked at earnings  
11 releases is that Cammer Factor 5 specifically  
12 talks about cause and effect relationship  
13 between financial releases and a response in the  
14 stock price.

15 And it says that it would be helpful  
16 to know if there's evidence that the financial  
17 releases actually did impact the stock price.

18 So that's why I looked at the 19  
19 earnings releases. And as I mentioned earlier,  
20 I also looked at the last day of the class  
21 period because I always look at the last day of  
22 the class period. In this case it's a corporate  
23 event, it's the resignation of board members  
24 because of certain concerns that they have.

25 So that's what I did in order to be

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1 yes, is it not?

2 MR. ZOHRABIAN: Grant, I'm going to  
3 ask you to be polite to the witness.

4 BY MR. MAINLAND:

5 Q No?

6 A You started out by saying that all I  
7 did in Cammer Factor 5 was to look at 20 event  
8 dates. I explained that that was not all I did.  
9 I have already explained what I did.

10 You come back to me and pretend that  
11 your original question was simply whether or not  
12 I only looked at 19 release dates and the  
13 corrected disclosure at the very end, which is  
14 somewhat deceptive to me at least, because  
15 that's not why I went through a full description  
16 of all of this.

17 Nineteen plus one is 20, I mean, I  
18 don't understand what the issue there is.

19 Q I'm just asking is 20 event dates --  
20 you had comfort that using 20 event dates for  
21 your event study was sufficient in a five-year  
22 class period; right?

23 A I was --

24 Q You would not have done the event  
25 study premised on 20 event dates if you didn't



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1 think that was enough; isn't that fair?  
 2 MR. ZOHRABIAN: Objection to form.  
 3 THE WITNESS: I looked at -- I was  
 4 comfortable that it met what -- the  
 5 definition of financial releases that the  
 6 Cammer factor set forward.

7 In other words --

8 BY MR. MAINLAND:

9 Q Not my question.

10 A -- I follow the Cammer factor. This  
 11 is reading the Cammer factor, following the  
 12 Cammer factor. When I do my analysis of the  
 13 financial releases, I pick the financial  
 14 releases there are, and there are 19, I can't  
 15 make up more financial releases.

16 Q I'm not asking you to. I'm asking a  
 17 very simple question. You felt comfortable that  
 18 20 event dates in a five-year class period was  
 19 sufficient; correct?

20 MR. ZOHRABIAN: Objection to form.

21 THE WITNESS: I felt comfortable that  
 22 analyzing financial releases as Cammer  
 23 Factor 5 calls for --

24 BY MR. MAINLAND:

25 Q Does it call for -- sorry, finish.

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1 I'm sorry, finish your answer.

2 A I was comfortable by looking at the  
 3 financial release dates. It turns out to be 19  
 4 of them, yes.

5 Q So the answer is yes, you were  
 6 comfortable that a total of 20 event dates was  
 7 sufficient during this class period --

8 MR DEFENSE: Objection.

9 BY MR. MAINLAND:

10 Q -- to conduct a reliable event study?

11 MR. ZOHRABIAN: Same objection.

12 BY MR. MAINLAND:

13 Q Is that a controversial question? I  
 14 don't know why --

15 A Because you're twisting it around.

16 Q It's a very simple question. Let me  
 17 just reread -- would you --

18 A I'm going to sit back and tell you ask  
 19 me a question that I can answer without being  
 20 interrupted.

21 Q I don't think I've interrupted you  
 22 very much. The one time I did, I stopped and  
 23 asked you to finish the question. So that's not  
 24 an issue. But why don't we go back and see what  
 25 the question was.

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1 The answer is yes, you were  
 2 comfortable that a total of 20 event dates was  
 3 sufficient during this class period to conduct a  
 4 reliable event study; is that right?

5 MR. ZOHRABIAN: I'm going to make the  
 6 same objection.

7 THE WITNESS: An event study -- first  
 8 of all, what an event study is is a study of  
 9 an event, right. The event that I analyzed  
 10 related to the last day of the class period.  
 11 So I performed an event study for that  
 12 purpose. And that's one day.

13 In addition what I did was I analyzed  
 14 cause and effect relating to the financial  
 15 releases and that's 19 days. There's not --  
 16 I wouldn't necessarily call that an event  
 17 study, it was just to see whether or not the  
 18 magnitude -- whether or not there was a  
 19 statistically significant price return  
 20 following the financial releases.

21 And then using that binomial  
 22 distribution to determine the probability of  
 23 that occurring randomly. That's what I did  
 24 there. Those are two different analysis.  
 25

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1 BY MR. MAINLAND:

2 Q Okay.

3 A In addition to that, I quantified, for  
 4 each day during the class period, the statistic  
 5 that enabled me to look through the large volume  
 6 of analysts' reports and media to see whether or  
 7 not there was any evidence of market  
 8 inefficiencies that would concern me.

9 In addition to that, I also looked at  
 10 whether market information was quickly reflected  
 11 in the stock price and whether or not industry  
 12 information was reflected in the stock price.

13 Based on all of that, I concluded that  
 14 Cammer Factor 5 was satisfied. In terms of  
 15 market being efficient, I looked at all of the  
 16 evidence, including Cammer Factor 1, 2, 3 and 4  
 17 and the Krogman factors.

18 Q Thank you for summarizing the entirety  
 19 of your report. I still didn't get an answer,  
 20 but I'll move on. And I would appreciate  
 21 answers to my questions. I didn't get one on  
 22 whether you felt like -- what I heard you to say  
 23 there is, no, it actually wasn't 20 dates, it  
 24 was 19 dates.

25 Was 19 dates sufficient to conduct a

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1 reliable event study during this class period?

2 A For what purpose?

3 Q For purposes of determining whether  
4 there is direct evidence of the SQM ADS price  
5 quickly incorporating unexpected new material  
6 information?

7 A And as I explained to you, that's not  
8 all I did.

9 Q So the answer is no?

10 A It's not no.

11 Q You needed to do something more?

12 MR. ZOHRABIAN: Objection to form.

13 THE WITNESS: Whether or not I needed  
14 to do it or not is irrelevant. I did  
15 something more and this was additional  
16 evidence and the analysis of the financial  
17 releases was one of many things that I did.  
18 I have not analyzed whether or not that  
19 would be sufficient by itself.

20 If I had problems in the other areas,  
21 maybe I would have investigated more. I  
22 didn't. I had several different indicators  
23 that demonstrated that Cammer Factor 5 was  
24 satisfied and based on all of that, I  
25 concluded that it was satisfied.

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1 the market index IPSA and SQM indicating that  
2 new and material information, market  
3 information, was quickly incorporated into the  
4 company's stock price.

5 Why was it relevant to look to whether  
6 SQM's ADS was incorporating market information?

7 A In terms of market efficiency in  
8 term -- relates to whether or not information is  
9 being incorporated into the stock price.

10 Q Company specific information, no?

11 A Market efficiency is not limited to  
12 company specific information.

13 Q Isn't Cammer 5 limited to company  
14 specific information?

15 A No -- well, now we're getting involved  
16 in -- Cammer Factor 5 actually relates to  
17 company specific information in terms of  
18 earnings releases and financial releases.

19 And market efficiency in the context  
20 of reliance relates to misrepresentations.

21 Q Why --

22 A But it's the same thing with what you  
23 were asking me earlier in terms of serial  
24 correlation, why would you care about serial  
25 correlation or anything else?

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1 BY MR. MAINLAND:

2 Q Why did you look at the market index  
3 IPSA?

4 A Well, I looked at the dollar changes  
5 and the market index. And that is the -- what I  
6 considered to be kind of like the equivalent of  
7 the S&P 500 in the United States. So IPSA is a  
8 very large -- or it's an index of the larger  
9 companies in Chile.

10 Q Is it fair to say you looked at the  
11 index to see whether SQM's ADS price was rapidly  
12 incorporating market information?

13 A Well, that's one thing I used it for.  
14 But more importantly, the reason that I used it  
15 was to see whether or not there was information,  
16 market information in Chile and changes in the  
17 exchange rate that could explain portion of  
18 SQM's stock price.

19 When I combined the market index and  
20 the peer group index, I think the R-squared was  
21 above 50 percent, so I can explain a large  
22 portion of SQM's stock price.

23 Q In Paragraph 38 when you refer to  
24 IPSA, you say that you found that there was a  
25 statistically significant relationship between

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1 The reason is that as the Supreme  
2 Court pointed out, if you can -- this is my  
3 interpretation and you can take it for what it's  
4 worth. But according to the Supreme Court, if  
5 you can demonstrate that the market is generally  
6 inefficient in incorporating information, then  
7 you can presume that misrepresentations are  
8 also -- is incorporated into the stock price.

9 So here I'm looking at market  
10 information and demonstrating that that  
11 information was quickly incorporated into the  
12 stock price.

13 This means that there are investors  
14 that care about market information and they must  
15 have traded on it because if it was a stock  
16 where people did not monitor what was happening  
17 in the market or the industry, there would be no  
18 one buying and selling the stock and no way for  
19 that information to become reflected in the  
20 stock price.

21 Q Why do you control for market and  
22 industry factors in doing your regression?

23 A To isolate the company specific  
24 factor.

25 Q Because the company specific factor is

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1 what does or does not demonstrate that the ADS  
2 is actually incorporating unexpected news,  
3 right?

4 MR. ZOHRABIAN: Objection to form.

5 THE WITNESS: That relates to company  
6 specific information. If you're going to  
7 look at whether or not market information is  
8 incorporated, you would obviously not  
9 exclude market information.

10 If you're looking at whether or not  
11 the company -- company's stock price is  
12 incorporating company specific information,  
13 what you would you want to do is to exclude  
14 market and industry factors.

15 BY MR. MAINLAND:

16 Q What if the company had issued five  
17 financial releases during the class period of  
18 1,187 days, would you have conducted an event  
19 study premised on those five financial releases?

20 MR. ZOHRABIAN: Objection to form.

21 THE WITNESS: If you -- I would have  
22 to think about that because financial  
23 releases may or may not -- it may be that  
24 the analysis would be inconclusive. I would  
25 have to look at and analyze whether or not

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1 there was anything -- any informational  
2 value from an analysis like that.

3 BY MR. MAINLAND:

4 Q Well, that's going to the outputs of  
5 the study. I'm talking about the formation and  
6 the structure of the study.

7 Would you have been comfortable  
8 running an event study where it was premised  
9 exclusively on five financial release dates  
10 during a five-year class period?

11 MR. ZOHRABIAN: Objection to form.

12 BY MR. MAINLAND:

13 Q Would you have viewed that as a well  
14 constructed event study?

15 MR. ZOHRABIAN: Same objection.

16 THE WITNESS: Well, it's not -- the  
17 event studies, there would be five event  
18 studies, right. So the binomial analysis is  
19 not -- I guess you can call it an event  
20 study if you want.

21 But the question is whether or not the  
22 results would be inconclusive or not.

23 And --

24 BY MR. MAINLAND:

25 Q That's the results, I was asking about

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1 the -- I mean, you don't decide whether a given  
2 test is appropriately designed based on the  
3 results, do you?

4 A No, but based on the result, you can  
5 look at it and determine whether or not the  
6 results are inconclusive or conclusive. So when  
7 you run an event analysis, for instance, what  
8 happens is that you look at the result and you  
9 have to say does it meet whatever benchmarks or  
10 not or is there any informational value with the  
11 analysis.

12 There is not a problem with doing the  
13 analysis per se. All I'm saying is that, you  
14 know, you may end up with an incomplete or  
15 results that are not conclusive. So it does not  
16 help you one way or the other. It's not  
17 helpful.

18 Q Take off your statistician hat. At  
19 the end of the day, you're trying to figure out  
20 whether SQM's ADS reacted to new material  
21 information; right?

22 A That's correct, yes.

23 Q Isn't that just sort of the essence of  
24 the test that you're conducting?

25 A Correct.

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1 Q I'm going to have to make the  
2 hypothetical a little more extreme than the one  
3 I just did where I referred to five dates  
4 because I still wasn't really feeling like I was  
5 getting an answer. So let's just say there was  
6 one financial release during 1,187 days. Would  
7 testing that one day tell you anything?

8 MR. ZOHRABIAN: Objection to form.

9 THE WITNESS: It would tell you  
10 everything with respect to that day.

11 BY MR. MAINLAND:

12 Q With respect to that day?

13 A Yes.

14 Q Okay. It would tell you everything  
15 with respect to that day?

16 A Yes.

17 Q That's your testimony. What would it  
18 tell you about the general efficiency of the  
19 shares during a 1,187-day class period?

20 MR. ZOHRABIAN: Same objection.

21 THE WITNESS: The -- it would tell  
22 you -- what you would want to do is to  
23 determine, like I did on the last day of the  
24 class period, you would see whether or not  
25 there was -- you would do a little bit of a

<p style="text-align: right;">Page 122</p> <p>1 different test. What you would do is to  2 determine whether or not the information  3 disclosed was new and material information.  4 Then you would make a determination  5 whether or not this information would likely  6 cause a statistically significant increase  7 or decrease in the stock price. Then you  8 would perform a test and then you would look  9 at the results of your event study and see  10 whether or not the price reaction was what  11 one would expect in an efficient market.  12 BY MR. MAINLAND:  13 Q Isn't it your testimony that you would  14 be comfortable conducting an event study  15 premised on a single date during a five-year  16 class period?  17 A For what purpose?  18 MR. ZOHRABIAN: Objection.  19 BY MR. MAINLAND:  20 Q The same question we're asking over  21 and over again here. Are the shares -- is there  22 direct evidence of market efficiency here?  23 MR. ZOHRABIAN: Objection to form.  24 THE WITNESS: If you have one event  25 and you can look at the last event of the</p>	<p style="text-align: right;">Page 123</p> <p>1 class period, that is evidence that the  2 stock price quickly reacted to new material  3 and information. So yes, that would be  4 evidence of market efficiency.  5 BY MR. MAINLAND:  6 Q So --  7 A Regardless of how long the class  8 period of time.  9 Q Let's say there have been no financial  10 releases during this period. Would you feel  11 comfortable drawing a conclusion or offering an  12 opinion regarding the general efficiency of  13 SQM's ADS premised entirely on the last day of  14 the class period?  15 MR. ZOHRABIAN: Objection to form.  16 THE WITNESS: No, because, again, I  17 look at Cammer Factor 1, I looked at Cammer  18 Factor 2, 3, 4 --  19 BY MR. MAINLAND:  20 Q I'm talking about direct evidence.  21 MR. ZOHRABIAN: Same objection.  22 THE WITNESS: I look at everything. I  23 can exclude Cammer Factor 5. If only I had  24 Cammer Factor 1, 2 and 3 and knew nothing  25 about Cammer Factor 5, if it meets Cammer</p>
<p style="text-align: right;">Page 124</p> <p>1 Factor 1, 2 and 3, as it does in this case,  2 with respect to volume, with respect to  3 analyst coverage and with respect to analyst  4 ownership, in my opinion, the stock would  5 trade in an efficient market in a reliance  6 context.  7 BY MR. MAINLAND:  8 Q But that wasn't what I'm asking. I  9 mean, I'm happy to ask you a lot of questions  10 and I will in a little bit. We can take a break  11 soon if you would like to. But I intend to ask  12 you about your apparent opinion you stated in  13 your report that the indirect factors are  14 sufficient on their own.  15 But I'm just saying, if you're going  16 to do an event study, you don't want to do an  17 obviously unreliable event study; right?  18 MR. ZOHRABIAN: Objection to form.  19 THE WITNESS: No, that's why I'm  20 saying that you make --  21 MR. MAINLAND: Do you want to take  22 that?  23 MR. ZOHRABIAN: Can we go off the  24 record for a second? Is that okay?  25 MR. MAINLAND: Yes.</p>	<p style="text-align: right;">Page 125</p> <p>1 (Discussion off the record.)  2 BY MR. MAINLAND:  3 Q So I'm literally just talking about if  4 you're going to do an event study, you would  5 want to have some confidence that it's  6 constructed in a way that's going to be  7 meaningful. Simple as that. Do you dispute  8 that?  9 A No, and then you look at the results  10 and --  11 Q I did not finish my question. I was  12 trying to lay the predicate for the question.  13 You obviously don't want to design a  14 crazy event study; right?  15 MR. ZOHRABIAN: Objection to form.  16 THE WITNESS: I agree with that  17 because --  18 BY MR. MAINLAND:  19 Q Wouldn't an event study with one event  20 during a five-year class period be a crazy event  21 study?  22 MR. ZOHRABIAN: Objection to form.  23 BY MR. MAINLAND:  24 Q To put it colloquially. Would you  25 ever stake your professional reputation on</p>

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1 saying, I've tested a single news days in 1,187  
2 trading days and because I see what the share  
3 price is doing on that one news day, I've  
4 decided the shares traded efficiently for all  
5 the other 1,186 days?

6 MS. ZOHRABIAN: Same objection.

7 THE WITNESS: I don't want to offend  
8 your intelligence here, but that's not what  
9 my opinion is based on.

10 BY MR. MAINLAND:

11 Q That's not what I asked. We can  
12 reread the question. It's a pretty  
13 straightforward question.

14 A The...

15 Q Would you like me to restate it?

16 A No, but I would like you to be quiet  
17 when I start answering the question to explain  
18 it to you.

19 Different piece of evidence mean  
20 different things, okay? You're going to one  
21 event study and you're asking me does that mean  
22 that the market for a five-year period is  
23 efficient. I've already explained to you if you  
24 look at an event study for one event, which is  
25 typically what you do, you look at one event and

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1 you analyze it.

2 That will tell you something with  
3 respect to that event and whether or not the  
4 market process information efficiently with  
5 respect to that event.

6 So that was one piece of information.  
7 And then in terms of the other part, in terms of  
8 concluding that the market for a five-year  
9 period is efficient, what you would want to do  
10 is to look at all of the evidence and then make  
11 a determination on that.

12 Q So there is no minimal sample size  
13 that you're looking for in terms of constructing  
14 your event study?

15 MR. ZOHRABIAN: Objection to form.

16 THE WITNESS: An event study by  
17 definition is the analysis of an event.

18 There is one event, right.

19 BY MR. MAINLAND:

20 Q Maybe where --

21 A So if you pick an event and you want  
22 to analyze that event and determine whether or  
23 not the market reacted or processed the  
24 information that was disclosed in that day  
25 efficiently, that's what you do. You analyze

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1 it. If it processed the information  
2 efficiently, well, that is in favor of market  
3 efficiency.

4 If it didn't, if it was inconclusive  
5 or it completely ignored it, you draw a  
6 different conclusion.

7 Q Maybe we're getting bogged down in  
8 terminology, so let's put the phrase "event  
9 study" aside.

10 You conducted a test here where you  
11 looked at 19 financial release dates, you  
12 determined that on five of those 19 financial  
13 release dates, there had been a statistically  
14 significant return. And you concluded that that  
15 was strong evidence that the shares generally  
16 traded in an efficient market. Isn't that fair?

17 MR. ZOHRABIAN: Objection to form.

18 MR. MAINLAND: I'll read the words to  
19 you.

20 THE WITNESS: No.

21 BY MR. MAINLAND:

22 Q I don't know what more I can say here.

23 A I said it supported trading and  
24 efficient market but the test --

25 Q No, you said the statistical evidence

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1 is strong that new -- I'll direct the witness to  
2 the bottom of Paragraph 40. This is after you  
3 identified that five of the 19 releases were  
4 associated with statistically significant  
5 returns. And the bottom line sentence in that  
6 paragraph is: Consequently, the statistical  
7 evidence is strong that new and material company  
8 specific information was quickly incorporated  
9 into SQM's ADS price.

10 All I'm asking is if there hadn't been  
11 19 dates but there had been three dates, four  
12 dates, two dates, doesn't really matter, is  
13 there some minimal amount that you think is  
14 necessary when you're dealing with a class  
15 period of this size?

16 A Well, with respect, when you have a  
17 class period of this size, you would end up with  
18 19 financial releases.

19 Q I'm asking you to entertain my  
20 hypothetical.

21 MR. ZOHRABIAN: Sorry, I'm just going  
22 to ask -- I know you guys have been kind of  
23 talking quickly over each other, but to the  
24 extent that you can refrain and let him  
25 finish his answer and also if you can just



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1 let him ask his question, that would be  
2 better I think for the court reporter.

3 THE WITNESS: The number of financial  
4 releases included is incorporated into the  
5 statistical calculation. Right.

6 So when you do the calculation, that  
7 will be incorporated -- so you may have a  
8 different result if you have a smaller  
9 sample. And it may end up being  
10 inconclusive. It may end up, as in this  
11 case, demonstrating that a chance of this  
12 occurring randomly is less than 1 percent.

13 So that is evidence that company  
14 specific information was quickly  
15 incorporated into SQM's ADS price.

16 BY MR. MAINLAND:

17 Q What you're referring to there is the  
18 cumulative binomial probability test; right?

19 A Correct, yes.

20 Q I'll repeat essentially the same  
21 question. If you had four dates and two of them  
22 are statistically significant, and let's just  
23 assume -- I haven't run the binomial  
24 probability, but let's assume that gets you into  
25 the range that you concluded was strong evidence

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1 of efficiency in this case.

2 Would that be strong evidence of  
3 market efficiency?

4 A Well --

5 MR. ZOHRABIAN: Sorry, objection to  
6 form.

7 THE WITNESS: That probably would  
8 meet -- if you were able to get two  
9 statistically significant price movements  
10 out of four, that probably would end up  
11 showing that -- just mathematically that  
12 probably would result in evidence that it  
13 was unlikely -- you would reject a null  
14 hypothesis, which basically means that you  
15 would accept the proposition that new and  
16 material company specific information on  
17 those days were quickly incorporated into  
18 the stock price.

19 But you would have a smaller sample  
20 and --

21 BY MR. MAINLAND:

22 Q That's all I'm asking.

23 A Yes, you would have a smaller sample.  
24 I have had cases where you have small samples  
25 like that where I have expanded it outside of

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1 the class period just to -- you know, instead of  
2 just having four, having eight, for instance,  
3 just to get a little bit more.

4 MR. MAINLAND: Why don't we take a  
5 break?

6 MR. ZOHRABIAN: Okay. I know we're  
7 going to have lunch soon, so what is your  
8 sense of --

9 (Discussion off the record.)

10 VIDEOGRAPHER: This marks the end of  
11 media 2, Volume 1 in the deposition of Bjorn  
12 Steinholt. The time is 11:47, and we're off  
13 the record.

14 (Recess taken.)

15 VIDEOGRAPHER: This marks the  
16 beginning of media 3, Volume 1 in the  
17 deposition of Bjorn Steinholt. The time is  
18 1:04, and we are back on the record.

19 BY MR. MAINLAND:

20 Q Mr. Steinholt, before the break we  
21 were at various times referring to the Cammer  
22 factors. You recall that; right?

23 A That's correct, yes.

24 Q And you believe the Cammer factors are  
25 very useful in analyzing market efficiency;

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1 right?

2 A I believe so from -- in the context of  
3 reliance that is, yes.

4 Q In the context of reliance as opposed  
5 to what other context?

6 A Well, there is a lot of academic  
7 research relating to market efficiency where  
8 you're looking at market anomalies and you would  
9 use different methodologies for that purpose.

10 Q I see. I'll return to that in a bit.

11 But I wanted to ask you, there is a paper  
12 that -- well, before I get to that, are you  
13 aware of any systematic body of peer reviewed  
14 evidence or peer reviewed literature finding  
15 that the Cammer factors distinguish between  
16 efficient and inefficient stocks?

17 MR. ZOHRABIAN: Object to form.

18 THE WITNESS: I referenced one paper  
19 here that talks about the Cammer factors. I  
20 think what the Cammer factors does is to --  
21 where it's helpful is to identify stocks  
22 that are traded in open and developed  
23 markets and the academic research have shown  
24 time and time again that stocks that trade  
25 in open and developed markets trade

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1 efficiently in the sense that it is  
2 extremely difficult for investors to  
3 continuously make abnormal returns, in other  
4 words, beat the market.

5 BY MR. MAINLAND:

6 Q There is an article you cite in I  
7 guess Footnote 21 of your report by Brad Barber,  
8 Paul Griffin and Baruch Lev. It's entitled  
9 The Fraud-on-the-Market Theory and the  
10 Indicators of Common Stocks' Efficiency.

11 A Yes.

12 Q You're familiar with that article?

13 A It's an article that I have read and I  
14 have cited here. I have not read it in a few  
15 years, but I know of the article, yes.

16 Q So you did not reread it in connection  
17 with preparing this report?

18 A No. This is an article that has been  
19 around for more than I think 20 years.

20 Q And they state at Page 290 of the  
21 report -- of their article, I'm sorry, they  
22 state: We know of no systematic body of  
23 evidence showing that these or any other  
24 criteria -- and they are referring to the Cammer  
25 criteria -- distinguish between efficient and

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1 inefficient stocks.

2 A Right.

3 Q Are you familiar with a systematic  
4 body of evidence on that topic?

5 MR. ZOHRABIAN: I'm just going to  
6 object that we'll just take your  
7 representation that you accurately read it  
8 but we don't see the --

9 MR. MAINLAND: Why don't we show him  
10 the exhibit. That was Exhibit 5 I think. I  
11 was going to get to it later, so I wasn't  
12 withholding it for any reason, but it's fine  
13 to mention it.

14 I'm handing the court reporter what  
15 will be marked as Steinholt Exhibit 2.

16 (Exhibit 2 was marked.)

17 BY MR. MAINLAND:

18 Q What I was reading from was on  
19 Page 290 of that article at the very top. In  
20 the sentence -- I'm sorry, in the paragraph  
21 immediately preceding the top of Page 290,  
22 there's discussion of the Cammer factors. You  
23 can see that on 289 in the Cammer v. Bloom case.

24 Then on Page 290 they say: The  
25 various market efficiency criteria applied to it

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1 by courts are ad hoc. We know of no systematic  
2 body of evidence showing that these or any other  
3 criteria distinguish between efficient and  
4 inefficient stocks.

5 I guess the question is: Are you  
6 aware of any systematic body of evidence since  
7 they published this that does distinguish  
8 between efficient the inefficient stocks?

9 MR. ZOHRABIAN: I'm just going to  
10 object to form.

11 THE WITNESS: I don't think there has  
12 been a lot analysis one way or another. I  
13 think that the reasons why -- I speculate  
14 that the reasons why court used them is  
15 because they are focused in on evidence that  
16 demonstrates that the stocks trade in an  
17 open and developed market and believes that  
18 it's helpful also to see that, in fact, the  
19 stock price do react quickly to new and  
20 material information.

21 As I mentioned earlier, I think that  
22 in evaluation, for instance, we typically  
23 don't go through Cammer factors, we just  
24 assume that actively traded stock, that the  
25 prices in such markets are efficient and

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1 reflect information in it.

2 I think also in academic research, I  
3 don't think that even though market  
4 efficiency is a premise when you run the  
5 event study, academics don't run any  
6 specific tests of market efficiency to  
7 determine whether or not the market for the  
8 stocks that are used in the event study is  
9 efficient.

10 Efficiency is presumed with respect to  
11 the open and developed markets that were  
12 actively traded stocks trade. So it's kind  
13 of like a presumption in academia and in  
14 evaluation and -- but in the law, you know,  
15 we have these factors which seem reasonable.

16 I think the one that comes the closest  
17 probably is the Cammer -- I'm sorry, the  
18 Cornell and Rutten article that I cited in  
19 here in order to explain why the Cammer  
20 factors would be relevant.

21 BY MR. MAINLAND:

22 Q Okay. And I'll be asking about the  
23 Cornell and Rutten article in a little bit.  
24 Before we get to that it, are you aware of  
25 any -- of studies that have been conducted



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1 finding market inefficiency even in open and  
2 developed markets?

3 A I'm sorry, could you repeat the  
4 question?

5 Q Are you aware that studies have been  
6 conducted finding instances of market  
7 inefficiency even in situation where the shares  
8 trade in open and developed markets?

9 MR. ZOHRABIAN: I'm just going to  
10 object to form.

11 THE WITNESS: There are anomalies in  
12 the market. So there are a large body of  
13 event studies that identify such anomalies.  
14 The problem is whether or not you can  
15 consistently outperform the market and all  
16 of the studies that look at investment  
17 returns by actively managed funds  
18 demonstrates that that is very, very  
19 difficult.

20 It's not that it can't be done, it's  
21 just that it is extremely difficult and that  
22 most actively managed funds do not meet the  
23 market.

24 In fact, when I was in Hong Kong in  
25 May of this year, and that's the latest

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1 analysis I'm aware of, they also had some  
2 data on actively traded funds and the fact  
3 that actively traded funds do not beat the  
4 market.

5 So given that, you can't -- and that's  
6 the basis for saying that, you know, when  
7 you have open and developed markets, it is  
8 difficult, extremely difficult for ordinary  
9 investors to beat the market.

10 BY MR. MAINLAND:

11 Q Are you familiar with the economists  
12 Owen Lamont and Richard Thaler?

13 A Certainly Richard Thaler. He won the  
14 Nobel Prize recently, yes.

15 Q Are you aware with their articles  
16 regarding the Royal Dutch Shell and Palm-3Com  
17 situations?

18 A Yes, I do. Yes.

19 Q Isn't it true that with respect to  
20 Royal Dutch Shell, they identified significant  
21 inefficiencies in the pricing of two sets of  
22 shares notwithstanding the fact that they traded  
23 in highly illiquid and open markets?

24 A They formed two different sets -- my  
25 recollection is you were asking me about

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1 something that I am obviously not -- I haven't  
2 really read or prepared for. But this is my  
3 recollection. They were talking about a  
4 situation where there were no arbitrage  
5 opportunities between two different sets of  
6 investors who had to do two different valuation  
7 views on the respective securities. Those  
8 things happen.

9 I also know that Richard Thaler  
10 himself puts the money in index funds because --  
11 precisely because he doesn't think that his  
12 retirement funds -- he believes that that is the  
13 best place to put his retirement fund because  
14 it's so difficult to meet the market.

15 MR. ZOHRABIAN: I'm just going to  
16 object to the prior question. I did not get  
17 an opportunity to interject it, it's just an  
18 objection to form.

19 BY MR. MAINLAND:

20 Q With respect to the Palm spinoff from  
21 3Com, they discovered the same thing, that there  
22 were substantial pricing inefficiencies even  
23 though the relevant shares satisfied the Cammer  
24 factors?

25 MR. ZOHRABIAN: Objection to form.

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1 THE WITNESS: Correct. This relates  
2 to whether or not the investors value the  
3 information. And that is a different -- and  
4 that's basically where the academic research  
5 is, you know, they try and -- it's not that  
6 information is not reflected in the stock  
7 price, it is whether or not investors  
8 correctly interpret and analyze the  
9 information. So that resulting price ends  
10 up being correct. That's a different issue.

11 BY MR. MAINLAND:

12 Q Are you distinguishing between  
13 fundamental efficiency and informational  
14 efficiency?

15 MR. ZOHRABIAN: Objection to form.

16 THE WITNESS: I'm distinguishing  
17 between whether or not -- well, there will  
18 always be disagreement whether or not  
19 investors are correct in their valuation of  
20 information.

21 And that's what this particular  
22 research relates to. And that may be true.  
23 Maybe -- and that may be true in any stock  
24 that investors are simply not correct.

25 What I'm saying and I think I --

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1 explained in my report -- let me just find  
2 it. So in Footnote 2, you know, it does not  
3 solve the issue of whether or not which  
4 investor is correct. All I'm looking at is  
5 whether or not the respective investors'  
6 view of the stocks' true value drives their  
7 purchases and sales, which in turn becomes  
8 the basis for the consensus price set by the  
9 overall market.

10 The market may be wrong. But what I'm  
11 saying is that the information is being  
12 interpreted by the market and their  
13 interpretation, whether or not it's correct  
14 or incorrect, becomes reflected in the stock  
15 price.

16 BY MR. MAINLAND:

17 Q And so your understanding -- your view  
18 is that the Lamont/Thaler scholarship is dealing  
19 not with informational inefficiencies?

20 A No, well --

21 MR. ZOHRABIAN: Object to the form of  
22 the question.

23 THE WITNESS: It deals with -- well,  
24 you're asking me about an article that I  
25 have not read or --

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1 Q With respect to the Lamont/Thaler  
2 scholarship, isn't the presence of arbitrage  
3 opportunities precisely an informational issue?

4 A That is -- well, arbitrage --

5 MR. ZOHRABIAN: I object to the form.

6 THE WITNESS: With respect to Cammer,  
7 they viewed arbitrage a little bit different  
8 in the sense that they were talking about  
9 sophisticated investors who acted quickly on  
10 new information.

11 So that if you have two markets like  
12 we have in this case, you know, the prices  
13 of the two would be -- well, arbitrage in  
14 the classic sense, if you have two markets  
15 and you have different prices, then  
16 arbitrage will kind of force these two  
17 prices to be the same.

18 My recollection is that there was a  
19 lack of arbitrage opportunities, so you had  
20 two different prices back then. So then,  
21 again, I'm stretching my recollection of  
22 that particular issue.

23 But I do recall reading about it.

24 BY MR. MAINLAND:

25 Q Are the standards used by courts in

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1 BY MR. MAINLAND:

2 Q If you don't know, that's fine.

3 A So I'm not going to comment on that.

4 But based on my recollection, it deals  
5 with what I just said and it relates to whether  
6 or not there were arbitrage opportunities  
7 between two different set of investors who may  
8 have different views in terms of the value of  
9 the securities.

10 And based on my recollection, that  
11 fits into the issue of whether or not investors  
12 are correct in their valuation.

13 Q But if there --

14 A Which is a different issue.

15 Q I understand. That's what I intended  
16 when I referred to a distinction between what is  
17 sometimes referred to as fundamental efficiency  
18 versus informational efficiency. Are you  
19 familiar with those terms?

20 A Yes. And it's -- I'm not sure exactly  
21 if I would phrase it that way. But --

22 Q And -- but you just mentioned  
23 arbitrage opportunities in connection with two  
24 sets of shares.

25 A Yes.

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1 assessing market efficiency supported by  
2 economic principles?

3 MR. ZOHRABIAN: Object to form.

4 THE WITNESS: Yes.

5 BY MR. MAINLAND:

6 Q Have you ever given any analysis or  
7 applied any analysis as to whether the Cammer  
8 factors are, in fact, supported by economic  
9 principles?

10 MR. ZOHRABIAN: Same objection.

11 THE WITNESS: Yes. I mean, it is  
12 supported by academic research, as I said  
13 before, that demonstrates that in open and  
14 developed markets, actively traded stocks  
15 trade efficiently in the sense that it is  
16 extraordinarily difficult for anybody but  
17 the most sophisticated investors to earn  
18 abnormal returns; in other words, beat the  
19 market.

20 BY MR. MAINLAND:

21 Q What do you mean by open and developed  
22 markets?

23 A An open and developed -- an open  
24 market is one where if you have a brokerage  
25 account, you can buy and sell the shares.

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1 Developed market means effectively actively  
2 traded securities.

3 Q What is an actively traded security?

4 A It's one that has sufficient volume to  
5 absorb trading when you want to trade it.

6 Q The first four Cammer factors are  
7 frequently referred to as indirect factors;  
8 right?

9 A That's correct, yes.

10 Q I believe you refer to them that way;  
11 is that right?

12 A Correct. I just adopt the common  
13 language that's being used, yes.

14 Q What does indirect mean when referring  
15 to the first four Cammer factors?

16 A It means effectively that you're  
17 looking at the economic conditions that  
18 facilitates market efficiency.

19 Q And the indirect factors do not  
20 measure what the share price in question  
21 actually does; right?

22 MR. ZOHRABIAN: Object to form.

23 THE WITNESS: No, it's not an analysis  
24 of the share price. It looks at volume, but  
25 not the price.

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1 BY MR. MAINLAND:

2 Q In other words, it looks at the  
3 context in which the shares are trading; is that  
4 fair?

5 A It looks at the market.

6 Q Okay.

7 A It looks at the market where the  
8 shares traded.

9 Q But it's not looking at what the  
10 shares actually did on a given day; correct?

11 A It's only the volume, not the price.

12 Q Right. What I should have said more  
13 clearly is it's not looking at what the share  
14 price did on a given day, correct, the four  
15 indirect factors?

16 A Exactly, it does not look at the  
17 price, it looks at the overall market and market  
18 structure.

19 Q In Paragraph 17 of your report, you  
20 state -- in the second to last sentence there,  
21 you state: From an economic point of view, the  
22 indirect factors are by themselves commonly  
23 viewed to be sufficient to establish market  
24 efficiency in a reliance context.

25 A Correct, yes.

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1 Q Commonly viewed by whom?

2 A Commonly viewed by the same economists  
3 who accepts the notion that actively traded  
4 markets are efficient when they run events that  
5 is commonly -- common by valuation experts that  
6 accepts the market price under FAS 157 as  
7 reflecting the value given the available  
8 information.

9 So commonly it's the common view of  
10 anyone who's familiar with the research that  
11 demonstrates that stocks traded in such markets,  
12 you know, are efficient in that it is extremely  
13 difficult, if not impossible, to beat the  
14 market.

15 Q The only support you cite for it in  
16 your report is this Bradford Cornell and James  
17 Rutten article; isn't that right?

18 A No, I think you missed a lot there. I  
19 think that --

20 Q Am I missing -- there's one citation  
21 there.

22 A There's one citation for this  
23 particular sentence, but in terms of the concept  
24 that shares that trade on the open and developed  
25 markets are efficient, you know, I have a lot of

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1 footnotes here that talks about that particular  
2 issue.

3 Q And so when you say indirect  
4 factors -- when you say -- sorry, withdrawn.

5 When you say open and developed, do  
6 you limit that to the four indirect Cammer  
7 factors?

8 A No, I mean, open and -- I'm talking  
9 about a U.S. market, U.S. stock market, open and  
10 developed shares traded on U.S. stock exchanges  
11 such as the New York Stock Exchange and NASDAQ.

12 Q Okay. So the sentence says: From an  
13 economic point of view, the indirect factors are  
14 by themselves commonly viewed to be sufficient  
15 to establish market efficiency in a reliance  
16 context.

17 A Yes.

18 Q Then there is a footnote at the end of  
19 that.

20 A Yes.

21 Q Can we at least agree that there's  
22 only one article cited in that footnote,  
23 Footnote 14?

24 A Yes.

25 Q You would agree with that. Okay. Is

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1 there other authority that you considered  
2 putting into that footnote but omitted?

3 A No. I mean, I've discussed the  
4 concept and why the indirect Cammer factors are  
5 important. I had a full section before this  
6 discussing that.

7 And also I believe that this article  
8 itself has certain footnotes to that effect.

9 Q Okay. Let's look at the article. Can  
10 we get the Cornell written article, please?

11 MR. MAINLAND: We will mark this  
12 article as Steinholt Exhibit 3.  
13 (Exhibit 3 was marked.)

14 BY MR. MAINLAND:

15 Q I've placed in front of you Steinholt  
16 Exhibit 3. It's the article that you cite by  
17 Bradford Cornell and James Rutten in Footnote 14  
18 of your report. It's entitled Market Efficiency  
19 Crashes and Securities Litigation.

20 You're familiar with this article;  
21 correct?

22 A Yes, I am.

23 Q Did you read it in connection with  
24 reading this report?

25 A No, I did not, but I'm familiar with

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1 looking at the totality of the article, I  
2 think that is exactly what they do.

3 When they are talking about the  
4 indirect Cammer factors in the section  
5 before, I think that that is the way that I  
6 read it and that is the way that makes  
7 sense.

8 BY MR. MAINLAND:

9 Q Well, why don't I direct you to  
10 Page 451 of the article.

11 A Okay.

12 MR. ZOHRAIAN: Bjorn, I'm going to  
13 let you know that if you need to look beyond  
14 the specific places that he's pointing you  
15 to understand the full context of the  
16 article -- I realize that you read it  
17 before, but if you need to do that, feel  
18 free to take the time to do so.

19 BY MR. MAINLAND:

20 Q I'm going to point you to a specific  
21 portion of that page on Page 451 in, I guess,  
22 the third paragraph on that page, the first  
23 under: Assessing market efficiency for reliance  
24 purposes.

25 The very last sentence in that

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1 it.

2 Q Have you read it before?

3 A Yes.

4 Q In the parenthetical in Footnote 14  
5 you quote some direct text from the article and  
6 that's on Page 457 of the article.

7 And the particular language you cite  
8 is as follows: There's almost no dispute,  
9 however, that for securities traded in open and  
10 developed markets as measured by the Cammer and  
11 Krogman material, it is reasonable for all but  
12 the most sophisticated investors to rely on the  
13 market prices. There is, thus, little dispute  
14 that with respect to such securities, reliance  
15 on the integrity of the market prices (and thus,  
16 on the defendant's statements) is appropriately  
17 presumed.

18 Do you see that?

19 A Yes.

20 Q Now, it says open and developed  
21 markets as measured by the Cammer and Krogman  
22 criteria. Cornell and Rutten do not purport to  
23 carve out Cammer 5 from that sentence, do they?

24 MR. ZOHRAIAN: Objection to form.

25 THE WITNESS: I think when you're

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1 paragraph says: The Cammer court eschewed such  
2 a bright line rule and held that the critical  
3 inquiry was not where the securities were traded  
4 but whether the market for the particular  
5 security was, quote, open and developed, end  
6 quote, parentheses, and therefore, in the  
7 court's view, inferentially efficient, end  
8 parentheses, as demonstrated by five criteria.

9 A Right.

10 Q There are five Cammer criteria;  
11 correct?

12 A That's correct, yes.

13 Q And so here it's referring to open and  
14 developed as demonstrated by five criteria.

15 Why do you think the fifth Cammer  
16 factor is being carved out of the sentence on  
17 Page 457?

18 MR. ZOHRAIAN: Object to form.

19 THE WITNESS: The discussion centers  
20 around the indirect factors and that is why  
21 I -- I have to read it again and it's going  
22 to take me some time, but that's fine.

23 BY MR. MAINLAND:

24 Q Your testimony is that this general  
25 discussion in or around Page 457 is centered on

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1 the indirect factors?

2 A Yes. For instance, on Page 455,  
3 second paragraph, it says: Inasmuch as the  
4 Cammer and Krogman factors for the most part do  
5 not directly speak to efficiency, but instead  
6 speak to whether a market is, quote, open and  
7 developed -- which is -- which relates to the  
8 first four factors -- they are best understood  
9 as constituting an indirect test by which courts  
10 infer efficiency for reliance purposes.

11 The Cammer and Krogman courts  
12 apparently assume that if the stock is actively  
13 traded by a large number of reasonably informed  
14 investors -- i.e., if the market is open and  
15 developed -- then a threshold level of  
16 efficiency can be inferred for reliance  
17 purposes.

18 So this discussion centers around the  
19 indirect tasks under Cammer and they also add  
20 Krogman.

21 And then it goes on to say that: This  
22 assumption makes economic sense given that the  
23 market could never be fully efficient but that  
24 all securities markets are efficient enough to  
25 incorporate a defendant's public statements to

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1 some degree. The fundamental question in the  
2 reliance context is whether the market is  
3 efficient enough that investors can be presumed  
4 to have relied on the integrity of the market  
5 price and thus to have relied on defendant's  
6 public statements.

7 Q So is it your testimony that open and  
8 developed as used by Cornell and Rutten refers  
9 only to the indirect factors?

10 A Yes. I mean, that is typically what  
11 you mean by open and developed.

12 Q Even though they say open and  
13 developed as demonstrated by five criteria?

14 A Well, if you understand --

15 Q Why didn't they say it's developed by  
16 four criteria?

17 A I mean, ask them. I'm not here to  
18 testify what is in their head, I'm just  
19 explaining to you the way that I read it and I  
20 think it's very clear to anybody who has an  
21 understanding of what an open and developed  
22 market is, it relates to the market structure  
23 whether or not it's open and developed, whether  
24 or not people can trade on it and whether or not  
25 it's actively traded, which all relate to the

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1 indirect factors. Cammer Factor 5 is a separate  
2 and distinct from that.

3 Q Is there any peer reviewed literature  
4 concluding that from an economic point of view,  
5 the indirect factors are by themselves  
6 sufficient to establish market efficiency?

7 A As I've explained before, the relevant  
8 research is that securities -- when actively  
9 managed funds are trying to earn excess return  
10 by buying and selling stocks in open and  
11 developed markets or actively traded markets,  
12 they by and large fail to do so.

13 So that is the relevant research in my  
14 view.

15 Q Okay. But I'm not hearing any  
16 particular articles in there.

17 A I've cited to probably a handful of  
18 articles that explains this concept that  
19 publicly-traded securities and on the New York  
20 Stock Exchange and NASDAQ can be -- is presumed  
21 to be efficient in that they incorporate new  
22 information so that it is extraordinarily  
23 difficult for anybody but the most sophisticated  
24 investors to earn excess return, in other words,  
25 beat the market.

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1 Q You don't cite any of those articles  
2 in Footnote 14, do you?

3 A I cited in my report Footnote 14  
4 specifically related to the Cammer factors, but  
5 the concept of the fact that securities  
6 traded -- actively traded securities on the New  
7 York Stock Exchange and NASDAQ, that they are  
8 generally presumed by pretty much anyone,  
9 economists, valuation experts and so on, to be  
10 efficient.

11 I've cited quite a few articles to  
12 that effect.

13 Q Do you think the courts are mistaken  
14 in considering Cammer 5?

15 A No.

16 MR. ZOHRABIAN: Object to form.

17 THE WITNESS: As the -- the Cammer  
18 court was very, very specific. It said that  
19 Cammer Factor 5 was helpful. It also -- but  
20 it also added that, quote: As previously  
21 noted, one of the most convincing ways to  
22 demonstrate efficiency would be to  
23 illustrate over time a cause and effect  
24 relationship between company disclosures and  
25 resulting movements in stock price.



1 However, as mentioned, as such -- as  
2 mentioned, such a showing would be difficult  
3 because it would require exploration of  
4 materiality and causation issues.  
5 Plaintiffs will not be required to delve  
6 into such issues at this early stage, end  
7 quote.

8 That's Footnote 6 of my report.

9 So I think that Cammer -- the Cammer  
10 court understood that Cammer Factor 5 would  
11 be helpful. They understand the importance  
12 of it, but they also -- I don't think that  
13 they intended it -- I may be wrong, I'm not  
14 the legal expert, but I don't think that  
15 they intended it to be necessary.

16 BY MR. MAINLAND:

17 Q They also -- the Cammer court also  
18 referred to Cammer 4 as helpful, didn't it?

19 A Where?

20 Q In Cammer v. Bloom, the court in  
21 Cammer said Cammer Factor 4 would be helpful?

22 A Yes. I mean, that was one of the  
23 factors that they looked at, yes.

24 Q We'll return to that in a bit.

25 In Paragraph 17 you say that: The

1 indirect factors are by themselves commonly  
2 viewed to be sufficient to establish market  
3 efficiency in a reliance context.

4 I asked you a little earlier about  
5 what you meant by that and I think you referred  
6 to market anomalies.

7 Maybe I'm mixing it up. But I asked  
8 you before when you used the words "in a  
9 reliance context" as opposed to what other kind  
10 of context do you have in mind? What are you  
11 trying to emphasize by using those words?

12 MR. ZOHRABIAN: Object to form.

13 THE WITNESS: Correct. So it is --  
14 let me just -- in Paragraph -- this is just  
15 my reading of the Supreme Court and  
16 Halliburton and in Paragraph 14, I quoted  
17 that Supreme Court decision. Quote: The  
18 Basic court acknowledged a debate amongst  
19 academics and declined to enter the fray  
20 declaring that, quote, we need not determine  
21 by adjudication what economists and social  
22 scientists have debated through the use of  
23 sophisticated statistical analysis and  
24 application of economic theory, end quote.  
25 To recognize the presumption of reliance,

1 the court explained, was not, quote,  
2 conclusively to adopt any particular theory  
3 of how quickly and completely publicly  
4 available information is reflected in the  
5 market price, unquote.

6 The court instead based the  
7 presumption on the fairly modest premise  
8 that the, quote, market professionals  
9 generally consider most publicly announced  
10 material statements about companies, thereby  
11 affecting stock market prices, end quote.

12 So in other words, there is a  
13 difference between what -- the academic  
14 research relating to anomalies and the  
15 analysis in Cammer which only focuses --  
16 well, which focuses on indirect factors to  
17 make sure that the market factors are there  
18 so that reliance can be properly presumed a  
19 fraud-on-the-market case.

20 BY MR. MAINLAND:

21 Q Is it your view that the court in  
22 Cammer and the Supreme Court in Halliburton too  
23 essentially adopted a more permissive standard  
24 of efficiency in a reliance context than  
25 economists consider when they are engaged in

1 academic debates?

2 MR. ZOHRABIAN: Objection to form.

3 THE WITNESS: In fact, I think what  
4 they are focusing in on is reliance and  
5 whether or not the miss -- whether or not  
6 one can presume that material  
7 misrepresentations became reflected in the  
8 stock price. I think that's the primary  
9 focus.

10 I don't think that it is whether or  
11 not the market is perfectly efficient. As  
12 Eugene Fama has explained, a perfectly  
13 efficient market is a -- is an unrealistic  
14 null -- extreme null hypothesis that nobody  
15 literally believes is true.

16 As I explained earlier this morning,  
17 as Grossman and Stiglitz demonstrated in  
18 their 1980 paper, an informationally  
19 efficient market is an impossibility  
20 because, of course, there are inefficiencies  
21 in a market. That's what drives the  
22 competition. That's why people analyze  
23 stocks and that's why some people make  
24 money.

25 But I don't think it was intended -- I

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1 don't think the courts really are that  
2 focused in on whether or not the markets are  
3 correct. I think it is more of an issue of  
4 reliance, is it reasonable to rely on the  
5 stock price as having incorporated the  
6 alleged misrepresentations in the stock  
7 price.

8 BY MR. MAINLAND:

9 Q And I'm familiar with the  
10 Grossman-Stiglitz paradox you're referring to.  
11 What I'm having a hard time understanding is  
12 when you use the words "in a reliance context,"  
13 what other contexts might there be in which an  
14 analysis of market efficiency might be  
15 important?

16 MR. ZOHRABIAN: Objection, asked and  
17 answered.

18 THE WITNESS: Well, you can have all  
19 sorts of different analyses of market  
20 efficiencies, and academic research have  
21 performed some or a lot of them where they  
22 believe that investors effectively are  
23 incorrect.

24 The issue there is not whether or not  
25 information becomes reflected in the stock

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1 price, it is whether or not the  
2 information -- it is whether or not the  
3 information is correctly evaluated by  
4 investors, which is a very subjective issue.

5 I quoted one article in Paragraph 12  
6 from one academic article and they say,  
7 quote: Financial economists have shown  
8 repeatedly that stock prices react quickly  
9 to the release of important new information.  
10 Though they may differ in their  
11 interpretation of this evidence, they do  
12 exist -- they do agree it exists.

13 Even prominent financial economists  
14 with divergent interpretation of the  
15 evidence of market efficiency share similar  
16 views on how stock prices react to new  
17 information, end quote.

18 BY MR. MAINLAND:

19 Q What about in the damages context?

20 MR. ZOHRABIAN: Object to form.

21 THE WITNESS: That's an interesting  
22 issue because the Cornell/Rutten article  
23 actually leans towards using fundamental  
24 analysis for the purposes of the damage  
25 analysis.

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1 BY MR. MAINLAND:

2 Q More than leans towards, doesn't it  
3 affirmatively propose that?

4 A Yes, exactly. That's what I meant.

5 Q Okay.

6 A So one of the things it advocates is  
7 that instead of relying on the market being  
8 efficient and someone, why not do the final  
9 analysis and do it that way, so --

10 Q Do you agree with that aspect of the  
11 article?

12 A No, I don't agree with that aspect of  
13 it. I think that using the event studies is  
14 preferable when possible. It may not always be  
15 possible. There has been instances where I have  
16 used fundamental analysis myself and so I don't  
17 think that -- I don't think it's wrong to use  
18 fundamental analysis.

19 All I'm saying is that in my  
20 experience, it is preferable to rely on the  
21 event study first and then, you know, if you  
22 need to, for instance, parse a price decline or  
23 do some adjustments, then use fundamental  
24 analysis for that purpose.

25 Q So, I mean, you do cite the

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1 Cornell/Rutten article approvingly in your  
2 report; correct?

3 A I do cite it approvingly in respect to  
4 the portions I agree with.

5 Q So you agree with the portions that  
6 say the Cammer factors generally are an  
7 appropriate gauge of market efficiency in the  
8 reliance context; is that right?

9 A Correct, yes.

10 Q But you disagree with the portion of  
11 their opinion that says that applying efficient  
12 market theory in the damages context permits  
13 plaintiffs to use ex post selection bias to take  
14 unfair advantage of market crashes and recover  
15 sums greatly in excess of actual damages?

16 MR. ZOHRABIAN: Objection to form.

17 THE WITNESS: Yes. I disagree with  
18 that. I think that the event study is the  
19 best methodology, although there could -- as  
20 I said before, it's not that I disagree with  
21 his view that it can be done on a  
22 fundamental basis as well. In my  
23 experience, the concerns that he addresses,  
24 I don't think that those concerns outweighs  
25 the benefit of using the event study.

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1 But it could be on a case-by-case  
 2 basis, maybe there are some cases where he's  
 3 correct, maybe there are some cases where  
 4 I'm correct. But in general, I think that  
 5 in my practice, or in my experience, using  
 6 the event study for the purposes of  
 7 quantifying damages has been the best  
 8 methodology.  
 9 BY MR. MAINLAND:  
 10 Q What is the substantive basis for your  
 11 disagreement with Cornell/Rutten on this damages  
 12 issue other than the fact that it aligns with  
 13 the interests of plaintiffs?  
 14 MS. ZOHRABIAN: Objection to form.  
 15 THE WITNESS: I'm not sure it aligns  
 16 with the interest of plaintiffs. I think  
 17 that it's more unbiased. In other words,  
 18 you can -- the event study that plaintiffs  
 19 have and the event study that defendants  
 20 have is a fairly unbiased analysis of the  
 21 impact of the information on the stock  
 22 price.  
 23 To the extent you want to adjust that  
 24 price decline by some fundamental analysis,  
 25 I don't necessarily have a problem with that

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1 actual or the fundamental impact. You don't  
 2 know that it's going to be greater, you don't  
 3 know it's going to be less.  
 4 So I just -- it doesn't bias the  
 5 analysis in favor of one or the other.  
 6 Q What doesn't bias the analysis? I  
 7 don't know what the bias is you're referring to.  
 8 A You're saying -- you say the event  
 9 study is preferential to plaintiffs; in other  
 10 words, that it has a bias. I'm talking about  
 11 the bias that I understood you to argue there  
 12 is. What I'm saying is that if you do it on a  
 13 fundamental basis and if you have an event study  
 14 and you have a fundamental analysis, if  
 15 investors are correct, it should be exactly the  
 16 same, okay.  
 17 If investors are incorrect, well, they  
 18 may be incorrect in that the fundamental  
 19 analysis comes up with less damages or more  
 20 damages. It can go in either direction.  
 21 Q So they discuss market crashes and  
 22 their argument is that using efficient markets  
 23 or what you've been referring to as an event  
 24 study template systematically overcompensates  
 25 plaintiffs in those contexts?

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1 if it is appropriate.  
 2 But the thing with the event study is  
 3 that you're not going to -- you're going to  
 4 have something that's unbiased in the sense  
 5 that it doesn't benefit one side or the  
 6 other.  
 7 BY MR. MAINLAND:  
 8 Q You don't think it's in the interest  
 9 of plaintiffs -- let me withdraw that.  
 10 Maybe I misunderstood the question. I  
 11 was asking what is the basis of your  
 12 disagreement on damages other than that  
 13 disagreement happens to align with the interests  
 14 of plaintiffs?  
 15 MR. ZOHRABIAN: Same objection.  
 16 THE WITNESS: I don't agree with the  
 17 notion that the disagreement happened to  
 18 align with the interests of plaintiffs.  
 19 BY MR. MAINLAND:  
 20 Q Let me just --  
 21 A If I can explain. The event study  
 22 or -- to the extent that investors incorrectly  
 23 incorporates the information -- in other words,  
 24 that the impact is not the fundamental impact --  
 25 it can be greater or it can be lesser than the

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1 MR. ZOHRABIAN: Objection, form.  
 2 BY MR. MAINLAND:  
 3 Q Isn't that their argument?  
 4 A That may be true in a market crash  
 5 case if, in fact, the market overreacts and  
 6 legally you're not entitled to that recovery.  
 7 Part of this is a legal question.  
 8 You know, if -- let's say that the  
 9 market overreact, you lost the money. Why did  
 10 you lose the money and is that money  
 11 recoverable?  
 12 Part of that is a legal issue, so that  
 13 has to be also determined.  
 14 Q So -- but in a nutshell, you agree  
 15 with the portion of Cornell written on reliance  
 16 but disagree with their argument on damages; is  
 17 that a fair summary?  
 18 MS. ZOHRABIAN: Object to form.  
 19 THE WITNESS: I think it's a  
 20 simplified summary, but it's not complete.  
 21 I think that there is, as I said before,  
 22 certainly times where I agree with him that  
 23 doing fundamental analysis is necessary and  
 24 I have done fundamental analysis in my cases  
 25 myself.

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1 So I'm not disagreeing with the  
2 validity of using fundamental analysis. But  
3 my preference is to do event study for the  
4 reasons that I stated.

5 BY MR. MAINLAND:

6 Q You go on in your report to say that  
7 the fifth -- that Cammer 5 demonstrates cause  
8 and effect. What does that mean?

9 A It means -- well, cause and effect, it  
10 means new material information comes out and it  
11 impacted the stock price.

12 Q So the fifth factor looks to the  
13 actual reaction of the share price to new and  
14 material information; right?

15 MR. ZOHRABIAN: Object to form.

16 THE WITNESS: Yes, that's -- yes, it  
17 looks at the share price reaction to new  
18 material information, yes.

19 BY MR. MAINLAND:

20 Q And the fifth factor is often referred  
21 to as the direct factor; correct?

22 A Yes, I have referred to it as a direct  
23 factor and that is a common thing. I think that  
24 maybe Cornell said that analyst reports also was  
25 a direct factor, but that is not commonly how

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1 the term "direct factor" is used.

2 Q Right. Okay. So I'm just speaking  
3 more generally, occasionally that Cammer 5 is  
4 referred to as the direct factor; right? Is  
5 that right?

6 A Yes.

7 Q And occasionally it's referred to as  
8 the empirical factor; is that right?

9 A I don't know.

10 Q You have not heard it referred to as  
11 the empirical factor?

12 A No, I don't think -- maybe I have,  
13 maybe I have not. Typically they talk about  
14 it -- or typically the term direct factor is  
15 used.

16 Q You would agree, sir, that the  
17 ultimate test of market efficiency is a stock's  
18 actual price reaction to unexpected new material  
19 information, would you not?

20 MR. ZOHRABIAN: Object to form.

21 THE WITNESS: In a sense that is --  
22 yes, it's the direct test. So on a  
23 particular day, you can actually demonstrate  
24 that on that day, new information came out  
25 and if the stock price reacted to that,

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1 then -- well, then I think you have  
2 irrefutable evidence that the stock price  
3 reacted to new material information.

4 BY MR. MAINLAND:

5 Q When you say irrefutable evidence,  
6 you're saying assuming the evidence is, in fact,  
7 irrefutable?

8 A No, I'm saying that if you have --  
9 yes, I mean --

10 Q A lot of things can be refuted, I  
11 mean -- okay. I don't mean to argue with you,  
12 I'm trying to understand the word "irrefutable."

13 A If you have new information and you  
14 have evidence that the stock price reacted to  
15 that information, well, then, you know --

16 Q If it reacted, it reacted?

17 A Exactly.

18 Q Okay. You would agree that the  
19 empirical factor is in many ways the most  
20 important of the Cammer factors?

21 MR. ZOHRABIAN: Object to form.

22 THE WITNESS: I think -- no. I think  
23 it is good to look at it. I don't  
24 necessarily think it is the most important  
25 factor. I think it is the one where you can

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1 bring the most subjectivity into the  
2 analysis.

3 I think defendants may like it because  
4 you can obfuscate the issue more with Cammer  
5 Factor 5 because you can use subjectivity  
6 and add that into an argument that  
7 effectively second guess investors' actions  
8 and reactions to new information.

9 So you can basically say, well, you  
10 know, you have this investor that says  
11 something negative, why doesn't the stock  
12 price decline. Well, it's only one investor  
13 or it's just one analyst report. The market  
14 may interpret things differently than this  
15 particular investor or this particular  
16 analyst.

17 So it's much easier I think to bring  
18 subjectivity into the analysis. As such, I  
19 don't think that other than -- you know, the  
20 type of analysis that I perform, I don't  
21 think that it necessarily -- it's a good  
22 thing to look at, but I don't think that it  
23 is the most important one.

24 BY MR. MAINLAND:

25 Q And that's because you think

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1 defendants like to obfuscate, that's the reason  
2 for --

3 MR. ZOHRABIAN: Object to --  
4 BY MR. MAINLAND:

5 Q -- your view?

6 A I think that there is an opportunity  
7 to introduce subjectivity into the analysis.

8 Q Why would defendants be any more  
9 motivated to obfuscate than the plaintiffs?

10 MS. ZOHRABIAN: Same objection.

11 THE WITNESS: I think that with  
12 respect to the issue of market efficiency,  
13 that's pretty much -- you pretty much have  
14 unanimous view in terms of how actively  
15 traded stocks trade in the U.S. stock  
16 market.

17 I think on this particular issue, not  
18 necessarily other issues, but in terms of  
19 market efficiency, plaintiffs have the best  
20 arguments, quite frankly.

21 So it's very difficult in my view to  
22 rebut the presumption of market efficiency  
23 unless it is unique circumstance.

24 BY MR. MAINLAND:

25 Q If a plaintiffs wants to certify the

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1 class, why are they any less motivated? In  
2 fact, aren't they more motivated to obfuscate?

3 MR. ZOHRABIAN: Objection to form.

4 THE WITNESS: I don't think I  
5 testified in terms of motivation. I said  
6 that --

7 BY MR. MAINLAND:

8 Q You said defendants like to obfuscate  
9 and that's why we should not trust Cammer 5.

10 MR. ZOHRABIAN: Objection.

11 THE WITNESS: No --

12 BY MR. MAINLAND:

13 Q Let me ask a question. Do you  
14 disagree with the Cammer court's holding and its  
15 statement that the Cammer Factor 5 is the  
16 essence of market efficiency? Do you disagree  
17 with that statement?

18 A No.

19 Q So you agree that it's the essence of  
20 market efficiency?

21 MR. ZOHRABIAN: Objection to form.

22 THE WITNESS: Correct.

23 BY MR. MAINLAND:

24 Q And yet defendants like it because  
25 they like to obfuscate and that it shouldn't be

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1 trusted for that reason. Is that your  
2 testimony?

3 MR. ZOHRABIAN: Objection,  
4 mischaracterizes testimony.

5 THE WITNESS: It's not my testimony.

6 If you want me to provide my testimony, you  
7 can be quiet and listen to what I've said.

8 BY MR. MAINLAND:

9 Q I've listened to what you said for the  
10 last two minutes and that seems to be the gist  
11 of it.

12 MR. ZOHRABIAN: Objection to form.

13 BY MR. MAINLAND:

14 Q Do you disagree with the Cammer  
15 court's statement that the empirical factor, the  
16 direct factor, Cammer 5, is the foundation for  
17 the fraud-on-the-market theory?

18 MR. ZOHRABIAN: Same objection.

19 THE WITNESS: I believe that cause and  
20 effect is the key. It is whether or not  
21 price reacted to defendant's  
22 misrepresentations.

23 BY MR. MAINLAND:

24 Q And you would agree the other four  
25 factors, the indirect factors, are indicators of

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1 market efficiency but it's the direct factor  
2 that focuses on whether the market is actually  
3 efficient; is that fair?

4 MS. ZOHRABIAN: Object to form.

5 THE WITNESS: That is fair. My point  
6 is that you can more objectively assess the  
7 indirect factors than the fifth Cammer  
8 factor because the fifth Cammer factor you  
9 can always bring all sorts of different  
10 subjectivity into it such as what is the  
11 definition of market efficiency, you know,  
12 if you have an arbitrage opportunity, does  
13 that automatically means that defendant's  
14 misrepresentations are not incorporated into  
15 the stock price.

16 You can always second guess analysts  
17 or you can second guess the market. So  
18 there's a host of subjectivity that gets --  
19 that can be introduced.

20 What I try to do is to do tests for  
21 Cammer Factor 5 that are objective and it  
22 demonstrates cause and effect but still are  
23 objective without bringing in that level of  
24 subjectivity.  
25



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1 BY MR. MAINLAND:

2 Q Now, in Paragraph 18 you refer to  
3 Cammer Factor 5 as, quote/unquote, helpful. Is  
4 that your way of saying that it's ultimately  
5 unnecessary?

6 MR. ZOHRABIAN: Objection to form.

7 THE WITNESS: Actually, the term  
8 helpful comes from Cammer court.

9 BY MR. MAINLAND:

10 Q Okay. Is that the reason you used  
11 that word?

12 A Yes, it's the term used by the Cammer  
13 court, yes.

14 Q Just like the word -- the exact same  
15 word used with respect to Cammer 4, are you  
16 aware of that?

17 MR. ZOHRABIAN: Objection to form.

18 THE WITNESS: Cammer Factor 4 --

19 BY MR. MAINLAND:

20 Q I'll just represent to you the Cammer  
21 court also referred to Cammer Factor 4, not just  
22 Cammer Factor 5, as, quote/unquote, helpful?

23 A Yes.

24 Q You didn't use that word with respect  
25 to Cammer Factor 4, I don't believe?

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1 A I have no problem using it with  
2 respect to anything. I mean, that's fine.

3 Q Is it your view that the court can  
4 simply disregard Cammer Factor 5?

5 MR. ZOHRABIAN: Objection to form.

6 BY MR. MAINLAND:

7 Q Doesn't it need direct evidence?

8 A If you could ask one question at a  
9 time.

10 Q I wasn't done with my question. You  
11 were the one who was answering it before I was  
12 done. Look, let's commit to this. Let me  
13 finish my questions. I'll let you finish your  
14 answers as long as they don't go on for ten  
15 minutes. Go ahead.

16 MR. ZOHRABIAN: I'll say no answer has  
17 gone on for ten minutes.

18 THE WITNESS: Let me just repeat the  
19 question.

20 BY MR. MAINLAND:

21 Q Is it your testimony that a court in  
22 assessing market efficiency can disregard Cammer  
23 Factor 5?

24 A Absolutely not. I think that if there  
25 is evidence, relevant evidence relating to

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1 Cammer Factor 5, I think that that should  
2 absolutely be considered by the court.

3 Q And you cite in your report -- you  
4 cite a lot of cases in your report, a lot of  
5 case law. But you cite in particular a recent  
6 decision called Waggoner v. Barclays in  
7 Footnote 15.

8 Are you offering an opinion on the  
9 law?

10 A No.

11 Q So why did you discuss what Cammer  
12 requires, what the Barclays decision says? Why  
13 is that relevant to your analysis if you are a  
14 securities analyst?

15 MR. ZOHRABIAN: Objection to form.

16 THE WITNESS: When you do the  
17 analysis -- and it doesn't matter. It can  
18 be if you do an evaluation or any type of  
19 analysis, what you're trained to do, at  
20 least in evaluation, is that -- what you  
21 want to do is to communicate clearly what  
22 you're trying to do.

23 So I'm not telling anybody what the  
24 law is. But I am communicating what my  
25 understanding is of the law and provide a

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1 context to what I'm doing so that, you know,  
2 I am not opining that the market for SQM is  
3 perfectly efficient. What I'm doing is I'm  
4 using certain factors that has been provided  
5 by a particular court in order to see  
6 whether or not it meets -- whether or not  
7 these factors are being met.

8 And I'm using the language that Cammer  
9 used in terms of Cammer Factor 5 and I have  
10 this Second Circuit opinion, given that this  
11 is a Second Circuit case, relating to their  
12 view in terms of what the importance of  
13 Cammer Factor 5 is.

14 BY MR. MAINLAND:

15 Q On this sentence that I have returned  
16 to a number of times, it says: From an economic  
17 point of view, the indirect factors are by  
18 themselves commonly viewed to be sufficient to  
19 establish market efficiency in a reliance  
20 context.

21 I went back through some of your past  
22 reports. And about four or five years ago, I'm  
23 not being perfectly precise here, that sentence  
24 appeared.

25 You used to have a very equivalent

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1 paragraph for many years that didn't have that  
2 sentence. What was it that changed in the  
3 economic thinking that caused you to add that  
4 sentence in that now appears in virtually every  
5 report you've done since?

6 MR. ZOHRABIAN: Objection to form.

7 THE WITNESS: I have no clue. What I  
8 try to do is keep the reports very, very  
9 similar. As time goes on, there is things I  
10 change for whatever reason but then those  
11 changes then stick with the subsequent --  
12 may stick with a subsequent report.

13 I have no -- I don't know what the  
14 language was before, I don't -- I have no  
15 clue what caused the change other than I  
16 most likely sat by the computer and I  
17 thought, well, this is a good sentence and I  
18 typed it in.

19 BY MR. MAINLAND:

20 Q Did your lawyer suggest the sentence?

21 A It definitely was not the lawyers.

22 MR. ZOHRABIAN: Objection to form.  
23 I'll caution you not to get into any  
24 communications you had with attorneys.

25 MR. MAINLAND: We've been going for

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1 about an hour and 15 minutes. Why don't we  
2 take another break.

3 VIDEOGRAPHER: This marks the end of  
4 media 3, Volume 1 in the deposition Bjorn  
5 Steinholt. The time is 2:07, and we're off  
6 the record.

7 (Recess taken.)

8 VIDEOGRAPHER: This marks the  
9 beginning of media 4, Volume 1 in the  
10 deposition of Bjorn Steinholt. The time is  
11 2:30, and we're on the record.

12 BY MR. MAINLAND:

13 Q Mr. Steinholt, in all of the reports  
14 you've done on market efficiency, it's been your  
15 practice to include an event study or other  
16 empirical analysis of market efficiency;  
17 correct?

18 A Yes, I'm pretty sure that's true.

19 Q Have you ever submitted a report on  
20 market efficiency in which you did not include  
21 an event study?

22 A I can't imagine I have, no.

23 Q Have you ever -- withdrawn.

24 Your opinion in your report regarding  
25 damages, that opinion is that an event -- let me

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1 rephrase. Sorry.

2 Your opinion is that an event study  
3 can be used to estimate damages; is that fair?

4 A The event study framework can be used  
5 to estimate damages which would include an event  
6 study and, if necessary, some modifications  
7 using fundamental valuation tools.

8 Q What kind of modifications would those  
9 be?

10 A In some cases, sometimes there is two  
11 pieces of information that's being disclosed and  
12 one piece relate to the fraud and one piece does  
13 not relate to the fraud.

14 So what you want to do is that you  
15 want to take a look at the company specific  
16 price movement, but you want to only use the  
17 fraud related component of the company specific  
18 price movement in the damage analysis.

19 Q So you're referring to isolating  
20 confounding factors, for instance?

21 A Correct, yes.

22 Q But in your report, in Section 5, the  
23 final section of your report that is entitled  
24 Using the Event Study Framework to Calculate  
25 Classwide Damages, that section of the report

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1 doesn't refer to any fundamental analysis, does  
2 it?

3 A I state that in some circumstances  
4 generally event study methodology described in  
5 the article that I included in Footnote 56 is  
6 refined using fundamental valuation tools based  
7 on the premise that the present value of an  
8 investment is a reflection of its future cash  
9 flows, including the riskiness of these cash  
10 flows.

11 So if necessary, that is obviously  
12 what you would have to do.

13 Q If an event study is not sufficient to  
14 prove efficiency in the reliance context, can it  
15 be used to reliably estimate damages?

16 MR. ZOHRABIAN: Objection to form.

17 THE WITNESS: I'm not sure I follow.

18 Are you saying that there's nothing wrong  
19 with the event study?

20 BY MR. MAINLAND:

21 Q Sure. If for whatever reason -- I  
22 know you believe in your event study, so we're  
23 not going to -- I'm not asking you to accept  
24 that there's any particular flaw in your event  
25 study.

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1 I'm just saying if an event study were  
2 determined to be unreliable for purposes of  
3 showing market inefficiency, would it be  
4 workable as a means of estimating damages?

5 MR. ZOHRABIAN: Objection to form.

6 THE WITNESS: I would like to study  
7 that particular scenario and I would like to  
8 know why it would be unreliable. I would  
9 like to know -- I just would want to know  
10 why and whether or not it's something  
11 fundamentally wrong with the event study  
12 methodology, which -- I would like to know  
13 what that is or whether or not it relates to  
14 the application of the event study that made  
15 it unreliable.

16 BY MR. MAINLAND:

17 Q Going back to the sentence we've  
18 talked about where you said the indirect factors  
19 are sufficient by themselves to establish market  
20 efficiency, your opinion is that the indirect  
21 factors are, in fact, satisfied in this case;  
22 right?

23 MR. ZOHRABIAN: Objection to form.

24 BY MR. MAINLAND:

25 Q That's a yes or no question.

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1 MR. ZOHRABIAN: Object to form.

2 THE WITNESS: That's a determination  
3 that the judge has to make.

4 BY MR. MAINLAND:

5 Q But you're offering an opinion to the  
6 judge.

7 A Yes, and he --

8 Q You would want him to agree with your  
9 opinion; right?

10 A I just want to answer the question.

11 I'm not here to tell the judge what  
12 the judge should consider or not consider. I'm  
13 providing an opinion and I'm explaining the  
14 basis for my opinion.

15 In this case I have analyzed five  
16 Cammer factors and three Krogman factors and I  
17 have determined that the -- based on all of  
18 those, I have determined that the market is  
19 efficient.

20 Q I've read your report, I know what you  
21 say in it.

22 A Jeez.

23 Q It's not responsive to my question.

24 A I'm explaining to you --

25 Q I don't think you are. You're not

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1 A My opinion is that the indirect  
2 factors in this case is satisfied -- the first  
3 part of your question is not exactly my  
4 position. My position is certainly that if the  
5 only evidence that you have is that indirect  
6 factors are satisfied, then I would conclude  
7 that the market is efficient because that would  
8 be consistent with economic research.

9 But if you in addition have an  
10 analysis, a Cammer Factor 5 type analysis that  
11 refutes that, that demonstrates that the market  
12 is inefficient, then I probably -- then I would  
13 weigh that higher than the indirect factors.

14 All I'm saying is that if that's the  
15 only evidence that you have, I would conclude  
16 that the market is efficient.

17 Q And taking that as the premise, that  
18 you only have the four factors, presenting that  
19 to the judge, not even going into the fifth  
20 factor, but the four factors are overwhelmingly  
21 satisfied, that's your opinion that you convey  
22 to the judge, aren't you effectively saying that  
23 he does not need an event study in order to  
24 conclude, to agree with you that the market is,  
25 in fact, efficient; right?

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1 answering the question.

2 A I mean --

3 Q I'm asking you to answer the question.  
4 Can I rephrase the question?

5 A I'm explaining to you -- I mean, if  
6 you're going to tell me what my opinions are and  
7 I believe that to be inaccurate, okay, I have  
8 the right to correct you, okay.

9 Q You clearly were not listening because  
10 I didn't say anything about what your opinion  
11 is. Let's back up and try to go back to the  
12 hypothetical I originally set.

13 The hypothetical is you have not done  
14 the direct factor at all, just haven't looked at  
15 it because you thought the first four indirect  
16 factors overwhelmingly establish market  
17 efficiency. And you convey that information to  
18 the judge in your report. Let's assume that's a  
19 report that you conveyed to the judge. There is  
20 no event study.

21 Could you then satisfy the judge that  
22 there is a workable damages model?

23 MR. ZOHRABIAN: Objection to form.

24 THE WITNESS: I'm sorry. Damages  
25 model?

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1 BY MR. MAINLAND:

2 Q Is that confusing? Yes, because we  
3 were talking about an event study showing  
4 damages. Point 5 of your report discusses an  
5 event study establishing or estimating damages.  
6 You need an event study to estimate damages, do  
7 you not?

8 MR. ZOHRABIAN: Object to form.

9 BY MR. MAINLAND:

10 Q Your testimony is that they are used  
11 all the time?

12 A Your testimony is that that's done all  
13 the time, is that a question?

14 Q I asked the question: Your testimony  
15 is that they are used all the time; is that not  
16 right?

17 It's in the report. We can read it.

18 A You added "is that not right" in order  
19 to make me answer the question. I was just  
20 waiting --

21 Q I thought in context it was clear, but  
22 now it's abundantly clear.

23 A In order to do an -- if you're going  
24 to use an event study to quantify damages, you  
25 obviously would have to perform an event study.

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1 It typically will not be the event study that  
2 you perform for the purposes of market  
3 efficiency.

4 Because what you're trying to do when  
5 you're quantifying damages is to isolate the  
6 fraud related events. Consequently, there are  
7 things that you would do to the event study in  
8 order to try to isolate the fraud related events  
9 that you would not do for the purposes of market  
10 efficiency.

11 So the -- it's not necessary -- the  
12 event study for the purposes of market  
13 efficiency may or may not be the event study  
14 that you used to quantify damages.

15 Q A little bit earlier -- I'm just  
16 thinking through your answer. A little bit  
17 earlier you said that you would -- if, let's  
18 say, the judge determined that the event study  
19 used to demonstrate direct evidence of market  
20 efficiency was unreliable and you said something  
21 to the effect of: I would need to know in what  
22 sense it was unreliable.

23 Let's just say the judge were to look  
24 at your event study and the tests that you ran  
25 based on the event study and say: I don't view

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1 that as sufficient evidence to demonstrate  
2 direct evidence of market efficiency.

3 Could you then turn around and use an  
4 event study to propose a workable damages model?

5 MR. ZOHRABIAN: Object to form.

6 THE WITNESS: If I understand your  
7 hypothetical, there's nothing wrong with the  
8 event study itself. It is just the  
9 quantification of using the binomial  
10 distribution to demonstrate cause and effect  
11 there. Then it seems to me that there is  
12 nothing wrong with the event study, so --  
13 but I don't necessarily think that you would  
14 use the event study that I have submitted  
15 for market efficiency purposes to quantify  
16 damages in any event.

17 So it's kind of irrelevant in terms of  
18 my argument that you can use -- my argument  
19 related to the methodology unless the  
20 argument is an event study for purposes of  
21 quantifying damages cannot be constructed.

22 BY MR. MAINLAND:

23 Q Is it logical to say, I believe the  
24 event study is insufficient to show direct  
25 evidence of market efficiency but I believe that

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1 an event study can nonetheless estimate damages?

2 MR. ZOHRABIAN: Objection to form.

3 THE WITNESS: Presumably the two event  
4 studies are different in any event for the  
5 reasons I've explained.

6 So the -- an event study can very well  
7 be inconclusive related to market efficiency  
8 but still be valid with respect to  
9 quantifying damages.

10 BY MR. MAINLAND:

11 Q Now, turning to the financial  
12 releases, we spoke in detail earlier about the  
13 financial release date study. Was that the  
14 right way to think of it or should I refer to it  
15 as a financial release date test or what is your  
16 preferred way of referring to it?

17 A You can refer to it however you want.

18 Q You understand what I'm referring to?

19 A Yes.

20 Q Okay. So you considered 19 financial  
21 release dates. Those were all the dates during  
22 the class period on which SQM released earnings  
23 information; is that right?

24 A Yes.

25 Q And then second and separately, you

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1 looked at the performance of the ADS price on  
2 March 18th, 2015, the last day of the class  
3 period, after certain news came out regarding  
4 the resignation of certain directors; is that  
5 right?

6 A That's correct.

7 Q I think you said earlier you don't  
8 view the latter as a similar study or that it's  
9 not an event study. Can you explain that a  
10 little bit?

11 MR. ZOHRABIAN: Object to form.

12 THE WITNESS: No, the last analysis I  
13 did of March 18 is an event study. An event  
14 is the information that was disclosed on  
15 March 18th, so it is a study of that  
16 specifically. If I said anything different  
17 earlier, I misspoke.

18 BY MR. MAINLAND:

19 Q The event on March 18th is  
20 fundamentally different from the financial  
21 release dates; correct?

22 MR. ZOHRABIAN: Objection to form.

23 THE WITNESS: Fundamentally -- oh, the  
24 analysis is different in the sense that I am  
25 using binomial distribution in order to look

Page 195

1 at the earnings releases in aggregate. The  
2 last event, I'm just looking at one event.

3 BY MR. MAINLAND:

4 Q But I'm talking a little bit -- I hear  
5 you on that, but my question was a little bit  
6 different, which is that the event itself on  
7 March 18th was a disclosure of the resignation  
8 of SQM's Potash directors; isn't that right?

9 MR. ZOHRABIAN: Objection to form.

10 THE WITNESS: Yes, it was not an  
11 earnings release. The nature of the  
12 information was different than the earnings  
13 releases, yes.

14 BY MR. MAINLAND:

15 Q So no financial or earnings related  
16 information was disclosed on March 18th, 2015;  
17 right?

18 MR. ZOHRABIAN: Objection to form.

19 THE WITNESS: That's correct, it was  
20 not an earnings release.

21 BY MR. MAINLAND:

22 Q Before getting to March 18th, I'm  
23 going to focus on the financial release date  
24 test in the first instance.

25 How did you determine to use those 19

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1 financial release dates as the events for that  
2 portion of the study?

3 A I determined -- I decided to use the  
4 financial releases because Cammer Factor 5  
5 specifically states that a cause and effect  
6 analysis of financial releases would be helpful.

7 Q Okay. But -- well, let me see where  
8 you seem to be reading from your report. Are  
9 you reading from --

10 A It's on Page 18.

11 Q Paragraph 36?

12 A Correct.

13 Q And in Paragraph 40 you state that  
14 financial releases -- the second sentence of  
15 Paragraph 40 you state: Financial releases  
16 generally provide new information to investors.

17 And then you go on. But just focusing  
18 on that portion of the sentence -- actually, I'm  
19 sorry, if you do go on, the end of the sentence  
20 you say: As noted in Cammer above.

21 Are you referring to the quote in  
22 Paragraph 36 when you say: As noted in Cammer  
23 above?

24 A Yes.

25 Q And is it true that the Cammer court

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1 said that financial releases generally provide  
2 new information to investors?

3 A No, it's true that Cammer court  
4 identified financial releases as disclosures  
5 that would provide new material information  
6 would show cause and effect.

7 Q It refers to unexpected corporate  
8 events or financial releases; right?

9 A Correct. It also has corporate events  
10 as well, yes.

11 Q Right. So -- but isn't the word  
12 "unexpected" modifying both?

13 MR. ZOHRABIAN: Object to form.

14 BY MR. MAINLAND:

15 Q That's how I read it. Do you read it  
16 differently?

17 A Yes. I mean, I have no problem if you  
18 want to read it that way. That's -- I don't  
19 have a problem with that.

20 Q So isn't new or unexpected information  
21 the touchstone of analyzing direct evidence of  
22 market efficiency?

23 A Well --

24 MR. ZOHRABIAN: Object to form.

25 THE WITNESS: Information can be new,



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1 but the results can be exactly what the  
2 market expected.

3 BY MR. MAINLAND:

4 Q Right.

5 A So I don't think that the fact that --  
6 I mean, the market knew they were going to  
7 release their financials, so the release of the  
8 last quarter's financials was not unexpected nor  
9 necessarily the earnings or revenues numbers,  
10 you know. So it may have just met the  
11 expectations, in which case you would not expect  
12 there to be a price reaction.

13 Q So your view is that financial  
14 releases are, as a general matter, more likely  
15 to convey new material information than on other  
16 days; is that fair?

17 A That's fair, yes.

18 Q They're more likely to but not  
19 necessarily that they will?

20 A That's correct, yes.

21 Q When you looked or used the 19  
22 financial releases, did you look at the content  
23 of the releases?

24 A Not for the purposes of performing  
25 this test. I did obviously look at it, you

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1 know, as just -- afterwards just to say that, in  
2 fact, there were information that could explain  
3 the price movement on the days where there was  
4 significant price movements. But I mean, that  
5 was a year ago, I don't really recall too much  
6 of it other than I did look at it.

7 Q You did that after running the  
8 regression?

9 A Correct. So this is not -- so this is  
10 an analysis that was performed without  
11 consideration to the direction. In other words,  
12 I did not determine beforehand what the  
13 direction would be. It was just a totally  
14 objective analysis; in other words, there was  
15 not a subjective analysis by me to say, well,  
16 you know, I think that would cause the stock  
17 price to go up or I think the stock price should  
18 go down.

19 It was just a purely objective  
20 analysis to see whether or not the stock  
21 price -- there were more statistically  
22 significant stock price movements on earnings  
23 release days as opposed to other days.

24 Q And when you say in Paragraph 40 that  
25 you believed the financial releases had a

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1 greater likelihood of altering the total mix of  
2 information, greater as compared to what?

3 A Greater as opposed to days without  
4 earnings releases. That does not mean that days  
5 without earnings releases could not also have  
6 new and material information, but on average,  
7 you would expect that earnings release dates,  
8 there would be greater likelihood just because  
9 you know you're going to have new information,  
10 you're going to have new information in both the  
11 last quarter about revenues, about earnings and  
12 so on.

13 So there is a greater likelihood that  
14 some of that is going to be unexpected either in  
15 the negative direction or a positive direction  
16 than a regular day.

17 Q Did you look to see whether there were  
18 other days during the class period where news  
19 was released that might have an equal or greater  
20 chance of altering the total mix of information?

21 A In terms of coming up with the type of  
22 disclosures, I don't have a type of disclosures  
23 that would likely be more result in more  
24 positive or negative price reaction that I can  
25 think of as I sit here.

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1 There's certainly -- this is a long  
2 time ago that I actually reviewed the analyst  
3 reports and so on.

4 But there were events that I saw that  
5 certainly were material and also, you know, had  
6 corresponding price movements.

7 You know, but that would be like an  
8 individual event, it would not be like a group  
9 of events -- I'm hoping to like 19, like I have  
10 four earnings releases, so I picked earnings  
11 releases.

12 Q I wasn't asking about a group events.  
13 I'm just wondering: Did you look at whether  
14 there was significant news on any of the other  
15 days other than these 19 days?

16 A Yes, back then I did. I had my event  
17 study and I had my analyst reports and so on.  
18 But I did not put any of that in the report. It  
19 was more an exercise to see whether or not there  
20 was something unusual that I should be aware of.

21 Q When you said you had your event  
22 study, why would that be a means of analyzing  
23 whether there's news?

24 A So the event study has a column here.  
25 When I talk about the event study, let me

1 explain what I'm talking about. I have an  
2 exhibit to my report and it is Exhibit E, and I  
3 have a column and it's a column with a heading  
4 T-statistic.

5 And that is an assessment of the  
6 statistical significance and so when I would go  
7 through analysts reports and media reports and  
8 if I looked at something that I thought, well,  
9 you know, this seemed to be an important event,  
10 I could then double check my event analysis or  
11 Exhibit E and see what the statistic would be on  
12 that particular day.

13 Q And is it your testimony under oath  
14 that you looked at the analyst reports or the  
15 news reports before you looked at the  
16 T-statistic?

17 MR. ZOHRABIAN: Object to form.

18 THE WITNESS: Yes, that's typically  
19 what I would do. I would go through on the  
20 Bloomberg and I would have, you know, the  
21 analyst reports and I would go through and  
22 see whether or not there is anything that  
23 seemed unusual or unexpected.

24 I then would check that with the  
25 T-statistic in the report to see whether or

1 not there, in fact, was a -- you know, a  
2 price movement either statistically  
3 significant or close to statistically  
4 significant at either the 10, the 5 or the  
5 1 percent level.

6 But that's not an analysis that I put  
7 in my report. So I'm not suggesting that  
8 that's not the base -- that's just the  
9 basis -- that's just for my own comfort that  
10 I did that.

11 It's not -- I mean, the basis for my  
12 opinion is the analysis that I did do that's  
13 in here in this report.

14 BY MR. MAINLAND:

15 Q Did you always review them in that  
16 order, analysts reports first and T-statistics  
17 second?

18 MR. ZOHRABIAN: Object to form.

19 THE WITNESS: Analyst reports first,  
20 T-statistics second and -- you know, just to  
21 see whether or not there was -- you know, if  
22 the price reaction was roughly what I would  
23 have expected.

24 BY MR. MAINLAND:

25 Q Was there ever a time where you looked

1 at the T-statistic and said, wow, that's a  
2 significant T-statistic, I'm going to go look  
3 and see if there was news?

4 MR. ZOHRABIAN: Object to form.

5 THE WITNESS: I don't know, but it  
6 wouldn't be uncommon to look, if there's  
7 like a big large statistic, to see whether  
8 or not, okay, what happened on that, but --  
9 on that day.

10 But usually when you go through it,  
11 you pretty much cover most of it.

12 But again, it's a year ago and so it's  
13 not like it is fresh in my head exactly.

14 BY MR. MAINLAND:

15 Q You said it would not be uncommon, but  
16 would it be methodologically sound to look at  
17 the T-statistic first and then look at the news  
18 and draw inferences as to market efficiency  
19 based on that?

20 MR. ZOHRABIAN: Object to form.

21 THE WITNESS: Well, I did not -- my  
22 conclusion regarding market efficiency is  
23 based on what is in my report. It's not --

24 BY MR. MAINLAND:

25 Q That wasn't the question. Would it be

1 methodologically sound to do it in that order?

2 MR. ZOHRABIAN: Object to form.

3 THE WITNESS: It depends. If you're  
4 doing the test of market efficiency where  
5 you want on a priori basis to determine the  
6 direction and then you want to test that, if  
7 that is the methodology that you use, then  
8 you would not look at the T-statistic first.

9 What you would do is you would look at  
10 the event first, then make the determination  
11 in terms of the direction and then test  
12 whether or not that the price reaction is  
13 consistent with what you expected.

14 BY MR. MAINLAND:

15 Q I think what you said there is that it  
16 wouldn't be methodologically sound to first look  
17 at the T-statistic and then look at the news and  
18 draw inferences as to market efficiencies based  
19 on that comparison, but tell me if I'm wrong.

20 MR. ZOHRABIAN: Object to form.

21 THE WITNESS: If that's the  
22 methodology, if that is what you're trying  
23 to do, then what you would want to do is for  
24 the a priori -- in other words, before  
25 looking at the T-statistic, what you would

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1 want to do is to look at the event, then  
2 determine the direction of the event and  
3 then look at whether or not it is consistent  
4 with what you believed before.

5 Of course, there's -- this is part of  
6 what I said a little bit before, and that is  
7 that doing that type of analysis also  
8 introduces a lot of subjectivity because it  
9 means that your a priori analysis is  
10 consistent with that of investors and as  
11 I've discussed in my report, investors may  
12 regard the new information disclosed quite  
13 differently.

14 So -- and there may be information  
15 that is not captured in your media searches  
16 on Bloomberg and I think I have LexisNexis.

17 So there is a lot of issues with that  
18 type of an analysis, but it is something  
19 that I did just for my own -- as I said  
20 before, just for my own comfort.

21 BY MR. MAINLAND:

22 Q What do you mean your own comfort?

23 A My own comfort that the market for SQM  
24 was efficient and they there were now obvious  
25 days when there was new information that I

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1 believed should cause a statistically  
2 significant price movement and there was no  
3 statistically significant price movement.

4 Q But I thought you said earlier when  
5 you looked at news that whatever you saw there,  
6 it wasn't forming the basis for your opinion in  
7 this report?

8 MR. ZOHRABIAN: Object to form.

9 THE WITNESS: No, not the opinion in  
10 the report, but that is something that I did  
11 for additional comfort.

12 BY MR. MAINLAND:

13 Q It gave you comfort, so in that sense  
14 it is part of the basis for your opinion, isn't  
15 it?

16 MR. ZOHRABIAN: Object to form.

17 THE WITNESS: No. I mean, I think  
18 what I have provided here is the basis for  
19 my opinion, the fact that I was looking to  
20 see whether or not there was something that  
21 would challenge that. I mean, it's  
22 something that I did, but it's not a -- it's  
23 not something that I think a court should --  
24 it was for my benefit. It was not for the  
25 court's benefit.

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1 I don't think that the court should  
2 provide or give any benefit to it because  
3 it's something that -- it's something that I  
4 did and it's not part of my report.

5 BY MR. MAINLAND:

6 Q But it must have added some value to  
7 your analysis, otherwise you would not  
8 have bothered doing it; right?

9 A Well, it has -- it provides comfort,  
10 as I said.

11 Q In what sense did it provide you  
12 comfort? You were looking for significant news  
13 events and then you wanted to see how did the  
14 stock react in a way one would expect given it  
15 was a significant news events and to the extent  
16 it did, that gave you comfort you were on the  
17 right track?

18 A It gave me comfort, yes.

19 Q How many of those dates did you  
20 identify?

21 A That is what I did when I went through  
22 the analyst reports and when I went through the  
23 media.

24 Q How many of those dates did you  
25 identify?

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1 A Dates? I mean, that's like asking how  
2 many reports did you look at. If I was looking  
3 at the --

4 Q No, it's a little different than that.  
5 I'm asking how many additional dates gave you  
6 comfort?

7 MR. DEFENSE: Object to form.

8 BY MR. MAINLAND:

9 Q Dates, calendar dates?

10 A I mean, I don't know. I was reviewing  
11 different media reports and analyst reports and  
12 there seemed to be a lot of different dates.

13 Q Your Exhibit B to your report just  
14 refers generically to LexisNexis media reports  
15 from February 2010 to June 2015 and Bloomberg  
16 media reports from 2010 through 2015.

17 MR. ZOHRABIAN: Objection to  
18 characterization of the report.

19 MR. MAINLAND: I'm just reading the  
20 words. Those are literally the words. I'll  
21 collectively agree on that if we need to.  
22 It's not very --

23 MR. ZOHRABIAN: I'm not trying to be  
24 argumentative with you, but it does provide  
25 the search terms for the LexisNexis in the

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1 time period through which the search term  
2 was applied.

3 MR. MAINLAND: I'll read it in full.  
4 Exhibit B, media reports, LexisNexis media  
5 reports from February 2010 to June 2015,  
6 parentheses, search term Sociedad Quimica,  
7 end parenthesis. And then the second bullet  
8 says Bloomberg media reports from 2010  
9 through 2015, parenthesis, SQM USCN, end paren.  
10

11 MR. ZOHRABIAN: Sorry, I'll just note  
12 for the record that there's -- in addition  
13 to the media reports, the SEC filings as  
14 well as the analyst reports that are listed.

15 MR. MAINLAND: Armen, the expert  
16 report is in the record. I don't think  
17 anyone is disputing as to what is in  
18 Exhibit B.

19 MR. ZOHRABIAN: Okay.

20 MR. MAINLAND: Is there a problem with  
21 me reading from a portion of a report  
22 without reading every single word that's on  
23 the page? Do you think that's misleading?

24 MR. ZOHRABIAN: What sounded  
25 misleading to me was just talking about

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1 media reports as if those were the only  
2 times where particular events are going to  
3 come up.

4 MR. MAINLAND: That was not remotely  
5 what it was I was suggesting. I was just  
6 setting up the question. Let's just reset  
7 here.

8 Q Under the media report subsection of  
9 Exhibit B which is entitled information relied  
10 upon, you generally refer to LexisNexis media  
11 reports and Bloomberg reports. Isn't that as a  
12 general matter accurate?

13 A Yes.

14 Q You don't identify any particular  
15 articles; right?

16 A No.

17 Q How many articles did you read?

18 A I think that I produced all of the  
19 articles that I had in front of me. And I know  
20 that on Bloomberg there may be -- there were  
21 additional articles, but I kind of -- when I  
22 printed it out, I just -- you know, there were a  
23 lot of them that may not have been as important  
24 to me, so I just printed out not everything but  
25 the ones that I thought were important.

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1 So I don't know exactly how many  
2 articles, but there were quite a few articles on  
3 this company.

4 Q So in Paragraph 26 of your report you  
5 refer to 2500 media reports and a search on  
6 LexisNexis that uncovered more than 400  
7 articles.

8 A That's correct.

9 Q You didn't read 2,900 media reports,  
10 did you?

11 A 2,500 --

12 Q No, I'm sorry, 2,900, 2500 plus 400?

13 A Sorry.

14 Q To be clear --

15 A I misunderstood.

16 Q 2500 media reports on Bloomberg, 400  
17 on LexisNexis, the total is 2900. Did you read  
18 2900 reports?

19 A No. I actually -- on Bloomberg is  
20 pretty straightforward because I actually  
21 literally printed out the ones that -- you  
22 actually have a copy of each one that I  
23 actually, you know, spent time reading. On the  
24 other ones, I would just skim really, I mean,  
25 spend a second on it or, you know, but the ones

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1 that I actually quickly read, I printed out and  
2 I'm pretty sure -- or I provided to counsel  
3 here, so I assume that you guys received it in  
4 discovery.

5 Q So the ones that you produced in  
6 connection with your report are the ones that  
7 you actually read?

8 MR. ZOHRABIAN: Objection,  
9 mischaracterizes testimony.

10 THE WITNESS: I look -- even though I  
11 looked at all of them, those are the ones  
12 that I would characterize as read as opposed  
13 to skimmed through.

14 BY MR. MAINLAND:

15 Q I mean, you did say: I actually  
16 literally printed out the ones that you actually  
17 have a copy of each one that actually, you know,  
18 spent time reading.

19 Sorry, I interpreted that as saying  
20 that the ones you read are the ones you printed  
21 out and the ones you printed out are the ones  
22 you produced to us. Is that accurate?

23 A Yes. It's accurate that, you know, if  
24 I would read something and find it important, I  
25 would print it out and it would be produced to

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1 you, yes.

2 Q How did you decide what was worth  
3 printing out?

4 A It is a subjective exercise. If I  
5 thought it was important enough to print out,  
6 then I printed it out.

7 Q Okay. Is there any -- can you put any  
8 more flesh on that? What would -- what is an  
9 example of something that you recall as seeming  
10 important to you that would cause it to be worth  
11 printing out?

12 A If I thought that it was something  
13 that I as an investor would be interested in, I  
14 printed it out.

15 Q Can you give me an example?

16 A I just -- not really. I mean, it's --  
17 if I thought it was important at the time, I  
18 printed it out. And if I thought it was  
19 either -- like many of the Bloomberg reports are  
20 somewhat repetitive and so on, I would not.

21 Q And you can't give me an example just  
22 because you don't remember?

23 A I don't remember, no.

24 Q There is not a single event out of the  
25 19 financial releases that sticks in your head

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1 as that one was -- clearly I had to print out  
2 that article?

3 A Well, obviously the March 18th event.

4 Q Why is that obvious?

5 A Because it's discussed in my report.

6 Q Okay. So I thought you meant  
7 obviously that would be material to investors, I  
8 should print that out as opposed to you  
9 obviously read it in, it's in your report. You  
10 meant the latter; right?

11 A Yes.

12 Q When you tested -- so when you looked  
13 at 19 financial release dates, what was your  
14 expectation as to how many of them -- actually,  
15 let me withdraw that question and ask a more  
16 basic one.

17 When you looked at the 19 financial  
18 release dates, did you have an expectation as to  
19 how many of them would be associated with a  
20 statistically significant return?

21 A No. So -- no, it's just a test, the  
22 null hypothesis as being that financial release  
23 dates are just the same as any other day. And  
24 then you look at how many days are statistically  
25 significant and you see whether or not -- you

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1 look at what is the probability of that simply  
2 occurring randomly.

3 And if you get a small P value, in  
4 this case the P value, the probability of it  
5 simply being random, was less than 1 percent.  
6 That is evidence that there was price reactions  
7 to the earnings release information.

8 Q Did you think it would be more than  
9 would occur by chance?

10 A Did I think that it would be more than  
11 would occur by chance? I mean, that's what I  
12 tested for, that's why I ran the test to find  
13 out.

14 Q What did you expect?

15 A Well, the hypothesis was that there  
16 would be no difference. That's the hypothesis.

17 Q That's the null hypothesis?

18 A Yes. So if, in fact, there is  
19 reaction to earnings releases, then you would  
20 expect there to be more statistically  
21 significant days on earnings release days. And  
22 then the question is, well, in terms of how many  
23 more and that's why you run -- you use the  
24 binomial distribution to determine what is the  
25 probability of getting five out of 19. It's

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1 less than 1 percent.

2 Q So just speaking simply, as between --  
3 you thought it would be more than one out of 19;  
4 is that fair?

5 MR. ZOHRABIAN: Objection.  
6 BY MR. MAINLAND:

7 Q You had no expectation? How could you  
8 not? Here's the reason I ask: You said in your  
9 report that they generally convey new  
10 information to investors and that they,  
11 therefore, have a greater likelihood of altering  
12 the total mix of information.

13 With that as your premise, can it  
14 really be that you have had no expectation that  
15 they would more than once be associated with  
16 statistically significant returns?

17 MR. ZOHRABIAN: Objection to form.

18 THE WITNESS: No, because even if, in  
19 fact, the market is efficient, there may  
20 simply not be material information disclosed  
21 on the earnings release.

22 BY MR. MAINLAND:

23 Q Any of the 19 times?

24 A You don't know.

25 Q Of course you don't know, you're not



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1 going to know until you run the test. I'm  
2 saying what did you expect?

3 A I did not expect anything. I just did  
4 the test.

5 Q So would you agree that share prices  
6 move in statistically significant ways even in  
7 the absence of news?

8 A That -- yes, I mean that's what the P  
9 value is for, you know, what is the probability  
10 of that actually happening. So if you have a P  
11 value of 5 percent, then you would find a  
12 statistically significant price movement  
13 5 percent of the time even if there is no new  
14 information.

15 Q Why don't we flip back to your --  
16 Exhibit E to your report. This is the event  
17 study. I'll direct you to Page 21 of Exhibit E  
18 to your report.

19 Are you there?

20 A Yes.

21 Q So I was going to ask you about  
22 January 15th, 2014. And what you see on that  
23 date is that the predicted return was  
24 1.66 percent, the abnormal return was  
25 5.77 percent and the T-statistic was 4.01.

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1 So just looking at the share price  
2 itself, the return was approximately 7.5 percent  
3 that one day; is that accurate?

4 A Yes.

5 Q And you would agree that's a  
6 significant increase on one day, wouldn't you?

7 A Yes.

8 Q And the T-statistic is well in excess  
9 of 1.96; right?

10 A Correct, yes.

11 Q And that's generally the T-statistic  
12 measuring statistical significance at the  
13 5 percent level, 1.96?

14 A Yes. I mean, if you use the 1.96, the  
15 5 percent level, then it's -- then what is this,  
16 4.01 is much higher.

17 Q And this was one of the most  
18 statistically significant movements in the share  
19 price during the entire class period; right?

20 Look, if you don't know, I understand  
21 there is a lot of numbers in here. I'll just  
22 represent to you that we looked, it's the 13th  
23 most statistically significant return in the  
24 class period.

25 A Right.

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1 Q Does that surprise you?

2 A It does not surprise me or not  
3 surprise me.

4 Q I'm just -- literally I'm only asking  
5 you, you have no reason to doubt what I just  
6 said; right?

7 A Right.

8 Q Okay. Do you know whether there was  
9 news on that day?

10 A Do I know?

11 Q Yes.

12 A As I sit here right now, no, I don't.

13 MR. MAINLAND: I'm going to mark the  
14 next exhibit as -- I believe it should be  
15 Steinholt Exhibit 4.

16 (Exhibit 4 was marked.)

17 BY MR. MAINLAND:

18 Q Now, this is a Form 6-K filed by  
19 Chemical and Mining Company of Chile Inc.  
20 That's SQM; right?

21 A Yes.

22 Q If you look, it's a very short  
23 paragraph. On Page 2 of that 6-K, January 16th,  
24 2014, it says that SQM reports that it received  
25 a letter from the Santiago Stock Exchange, and

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1 then it says the name of that in Spanish, on  
2 January 15th, 2014 notifying SQM that on  
3 Wednesday, January 15th, 2014 the Series B  
4 shares issued by SQM registered transactions at  
5 the price of Chilean pesos 14,919 each, marking  
6 a 7.35 percent rise with respect to the price of  
7 yesterday, Tuesday, January 14, which was  
8 Chilean pesos 13,897 per share. The Santiago  
9 Stock Exchange requested that SQM inform the  
10 market as soon as possible of any special  
11 circumstances or relevant facts or events that  
12 could explain said significant variation. SQM  
13 responded on such same January 15th, 2014 that  
14 it was not aware of any concrete circumstances,  
15 facts or events that could explain the referred  
16 price variation.

17 Have you seen this 6-K before?

18 A I don't recall. I would have -- I  
19 would have all of the ICC documents or documents  
20 that would be in my files. I don't recall any  
21 specific 6-K.

22 Q Did you read all of the 6-Ks?

23 A I would have skim through the 6-Ks.  
24 There may be some that I would have focused on  
25 more than others, but --

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1 Q And so one of the statistical -- most  
2 statistically significant share price reactions  
3 during the class period occurred entirely in the  
4 absence of news; right?

5 MR. ZOHRABIAN: Object to form.

6 THE WITNESS: I have -- I would have  
7 to analyze that. I don't know one way or  
8 another as I sit here.

9 BY MR. MAINLAND:

10 Q Isn't that what the company is saying  
11 here?

12 A I think the company is --

13 MR. ZOHRABIAN: Same objection.

14 THE WITNESS: I think the company says  
15 that it's not aware of any news.

16 BY MR. MAINLAND:

17 Q So the company was asked by its  
18 securities regulator whether it was aware of any  
19 news?

20 A That's my understanding.

21 Q That's what it says in the 6-K; right?

22 A Right.

23 Q And it stated -- SQM stated in an SEC  
24 filing that it had told the Santiago Stock  
25 Exchange that it was not aware of any events or

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1 news that would have caused that share price  
2 reaction. Is that a fair characterization of  
3 the 6-K?

4 MR. ZOHRABIAN: Object to form.

5 THE WITNESS: Based on what you're  
6 giving me, that's my understanding.

7 BY MR. MAINLAND:

8 Q Can it be there was other news that  
9 the company wasn't aware of that caused a  
10 statistically significant increase in the share  
11 price of this magnitude?

12 MR. ZOHRABIAN: Same objection.

13 THE WITNESS: I don't know as I sit  
14 here.

15 BY MR. MAINLAND:

16 Q Does it make sense to you? Other  
17 investors learn something really significant  
18 that cause them to buy up the shares and SQM had  
19 no idea what it was?

20 MR. ZOHRABIAN: Same objection.

21 THE WITNESS: I don't know who bought  
22 the shares. I mean, I --

23 BY MR. MAINLAND:

24 Q That wasn't my question.

25 Does it make sense that that's

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1 something that could have even happened?

2 A Well, when you're asking --

3 MR. ZOHRABIAN: Same objection.

4 THE WITNESS: -- whether or not  
5 something makes sense, you know, somebody  
6 bought shares and paid whatever the stock  
7 price was, \$28, and there was a short  
8 increase here. You know, for all I know, it  
9 was a short squeeze but that would be pure  
10 speculation.

11 You know, you don't know why somebody  
12 has to buy shares. Sometimes it happens,  
13 but it's not something I have -- I can  
14 explain to you here as I sit on a  
15 deposition.

16 BY MR. MAINLAND:

17 Q In all of the cases that you've worked  
18 on analyzing market efficiency, have you ever  
19 come across a situation where the companies or  
20 the issuers' securities regulator asked you to  
21 explain a significant movement in the share  
22 price?

23 A I'm trying to think. I mean, this  
24 is -- this was the regulators in Chile. I don't  
25 know if I have or not. I mean, I cannot --

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1 maybe I have in some of my cases, maybe I have  
2 not.

3 Q You can't recall?

4 A I can't recall one way or the other.

5 Q Does it seem unusual to you?

6 A Well, obviously it's a large price  
7 increase. So in that sense, it is unusual, but  
8 unusual things happen all the time. But I don't  
9 know why it went up there.

10 Who is buying the shares, sometimes --  
11 you know, sometimes there are rumors that  
12 someone is going to buy shares in a company and  
13 there is a runup on -- in the stock price even  
14 though the company is not aware of it.

15 But it would be pure speculation of me  
16 obviously to sit here at the deposition to start  
17 speculating in terms of why the share price  
18 increased without having analyzed it and just  
19 based on a 6-K that you're providing me.

20 Q Would you expect that in an efficient  
21 market that one of the largest abnormal returns  
22 during a five-year class period would be on a  
23 day when there was no evident news?

24 MR. ZOHRABIAN: Object to form.

25 THE WITNESS: It actually happens

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1 quite a bit in securities litigation. What  
2 we -- sometimes we don't find out exactly  
3 what happened with respect to certain days  
4 until after discovery. So I've had cases  
5 where you don't know exactly what happened  
6 on specific days until after you go through  
7 internal documents and so on and you find  
8 out later in the litigation exactly what was  
9 going on.

10 BY MR. MAINLAND:

11 Q Speaking of a 6-K, what is a Form 6-K?

12 A It is material events that foreign  
13 companies are filing with the SEC.

14 Q It's a form by which foreign private  
15 issuers such as SQM disclose material  
16 information; is that right?

17 MR. ZOHRABIAN: Sorry, I think you  
18 were still answering the question. I'm not  
19 sure if you were but --

20 MR. MAINLAND: It didn't seem like he  
21 was.

22 MR. ZOHRABIAN: He was definitely  
23 saying something.

24 THE WITNESS: So yes. I mean, the  
25 primary forms with respect to SQM is the

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1 20-F that's filed on an annual basis and the  
2 Form 6-Ks.

3 BY MR. MAINLAND:

4 Q And generally 6-Ks disclose  
5 information material to -- with respect to the  
6 issuer; right?

7 A Right. It's something that could be  
8 material. It's not -- if the company thinks  
9 that this might be material, this is something  
10 that should be disclosed to investors, they can  
11 use a 6-K to do so.

12 It's similar to an 8-K in a sense  
13 and -- for U.S. companies, but that doesn't mean  
14 that information is viewed as material --  
15 materially different from a public mix of  
16 information by investors.

17 Q Would you agree that 6-Ks have a  
18 greater likelihood of altering the total mix of  
19 information?

20 MR. ZOHRABIAN: Object to form.

21 THE WITNESS: I would not think so,  
22 quite frankly, because there are -- it may  
23 have a greater likelihood, but I think that  
24 differences between the two samples -- in  
25 other words, the days that did not have 10-K

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1 and days with 6-Ks, I don't think that that  
2 difference would be that large because my  
3 experience has been that -- and this is the  
4 same for 8-Ks for U.S. companies, that  
5 typically they do not result in  
6 statistically significant price increases or  
7 price decreases.

8 So there may be some increase, but I  
9 don't think it necessarily is material.

10 BY MR. MAINLAND:

11 Q Does the fact that there is no  
12 statistically significant reaction on the days  
13 that 6-Ks or 8-Ks are released, assuming that's,  
14 in fact, correct, show that they are not  
15 generally conveying new material information?

16 MR. ZOHRABIAN: Object to form.

17 THE WITNESS: I don't think I  
18 understood the question. If you could --

19 BY MR. MAINLAND:

20 Q I think you said: My experience has  
21 been, and this is the same for 8-Ks for U.S.  
22 companies, that typically they do not result in  
23 statistically significant price increases or  
24 price decreases.

25 Is that the metric for determining

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1 whether a given disclosure contained new  
2 material information?

3 MR. ZOHRABIAN: Objection to form.

4 THE WITNESS: Earnings releases very  
5 often result in statistically significant  
6 price increases or price decreases. So in  
7 my mind, it makes sense to use earnings  
8 releases with respect to these Form 6-Ks.  
9 If they traditionally do not materially  
10 alter the public mix of information, then it  
11 is a less valuable analysis because it most  
12 likely will end up being inconclusive.

13 BY MR. MAINLAND:

14 Q Are you aware that during the class  
15 period, SQM issued a far larger set of 6-Ks than  
16 the 19 financial releases?

17 A Yes. And that is one of the reasons.

18 Q Reasons for what?

19 A Because that's one of the reasons  
20 there are a lot of them and to be statistically  
21 significant, you know, you have to -- the price  
22 movement has to be at the 5 percent level or  
23 10 percent or 1 percent, whatever level you use,  
24 I use the 5 percent level. So if you have a lot  
25 of -- if you have a lot of days with 6-Ks, it's

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1 difficult for them all to be statistically  
2 significant; in other words, to be in the top  
3 5 percent of price returns.

4 Q So you did not want to use them  
5 because you were aware they are not going to  
6 result in statistical significance?

7 MR. ZOHRABIAN: Objection to form,  
8 mischaracterizes testimony.

9 THE WITNESS: No. Like I said before,  
10 I did not use them because I believed that  
11 they -- the analysis most likely would be  
12 inconclusive and if it was an inconclusive  
13 analysis, it would not be helpful to the  
14 court.

15 BY MR. MAINLAND:

16 Q It would not be helpful to you either,  
17 right, or to the plaintiff?

18 MR. ZOHRABIAN: Objection, form.

19 THE WITNESS: It wouldn't be helpful  
20 to defendants either. I mean, if you have  
21 evidence and it's inconclusive, I don't  
22 understand -- I mean, what is the value of  
23 it to anybody, to either side or the court?

24 BY MR. MAINLAND:

25 Q It sounds like what you chose to look

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1 at was driven by what you thought the results  
2 would be?

3 MR. ZOHRABIAN: Object to the  
4 characterization.

5 THE WITNESS: Not what the results  
6 would be, it would be whether or not you  
7 would get the results that was meaningful.

8 BY MR. MAINLAND:

9 Q Meaningful meaning either  
10 demonstrating market efficiency or refuting  
11 market efficiency, one of those two things,  
12 that's what would be meaningful?

13 A Well, by the way, it's a test that I  
14 do regularly in my reports and if it -- it's  
15 kind of -- if you have somebody committing a  
16 murder and they were wearing gloves, would you  
17 go in there and look for fingerprints, would you  
18 go in there looking for DNA in order to see  
19 whether or not the perpetrator could be  
20 identified?

21 You know, so if you look for  
22 fingerprints and no fingerprints comes up, it's  
23 inconclusive, it's not particularly helpful.

24 If you look for DNA, then you may have  
25 an analysis that -- you may have evidence of the

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1 culprit, either the -- either there is a match  
2 or there is not.

3 Q I understand what it means for  
4 evidence to be inconclusive. That's not really  
5 what I'm asking. I'm asking: Without even  
6 looking at the other nonfinancial release 6-Ks,  
7 you determined ex ante that the result would be  
8 inconclusive?

9 A No.

10 MR. ZOHRABIAN: Objection to form.

11 BY MR. MAINLAND:

12 Q Is that right?

13 A No, it is not. The -- the issue is  
14 not whether or not did I have concluded it  
15 because I haven't run the analysis. I don't  
16 know whether or not it's one way or the other.

17 Q But you said --

18 A I'm -- what I'm telling you is that I  
19 don't think it is a particularly meaningful  
20 test.

21 If it is, defendant's expert can run  
22 it and I can explain to the court why I don't  
23 think that it's fair and meaningful.

24 Q I mean in terms of your process, you  
25 just think it's an abstract matter, it's not

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1 meaningful?

2 A I think that when you have -- as an  
3 abstract matter, it is -- I don't think it is  
4 particularly meaningful because generally, in  
5 order to meet the 5 percent threshold, the  
6 information disclosed has to be very materially  
7 different from a public mix of information.

8 And most of the 6-Ks would not include  
9 such information, including this thing -- this  
10 6-K here. Let's see, whatever date that was  
11 filed on.

12 Maybe it had some informational value,  
13 maybe there was a different way -- maybe it's a  
14 different test one can run on some of these  
15 things.

16 But it's kind of like when you do  
17 medical research, what you want to do is to try  
18 to keep the people getting the placebo away from  
19 the people who are not getting the placebo and  
20 there's too much overlap with the 6-Ks.

21 Q Okay. I don't really understand what  
22 that means, but it's okay, we can move on.

23 Isn't it the case that financial  
24 releases are generally anticipated?

25 MR. ZOHRABIAN: Objection to the form.

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1 THE WITNESS: The timing of financial  
2 releases are anticipated, yes.

3 BY MR. MAINLAND:

4 Q The substance is unclear?

5 A Well --

6 MR. ZOHRABIAN: Same objection.

7 BY MR. MAINLAND:

8 Q I'm asking what you meant by your  
9 timing of qualification.

10 A Well, people know --

11 Q People know when -- go ahead.

12 A People generally know when a company  
13 will release their financials. There is a  
14 process typically in place. You have --  
15 generally you have the press release and then  
16 you have the conference call and so on. So  
17 people are -- expect new information to be  
18 available.

19 Now, what that information is, of  
20 course, is not knowable. It's not knowable  
21 whether or not they meet or beat expectations.  
22 Any projections or guidance that they will  
23 provide, that is not known.

24 Q And other 6-Ks, at least some of them,  
25 are filed in a more ad hoc manner; isn't that

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1 right?

2 A It can be filed at any time, yes.

3 Q And completely out of the blue;  
4 correct?

5 A The timing would be whenever the  
6 company decide to file it.

7 Q So isn't at least some subset of the  
8 other 6-Ks if anything more likely to convey new  
9 unexpected information, material information  
10 because by definition it's unanticipated?

11 MR. ZOHRABIAN: Objection to form.

12 THE WITNESS: That -- the timing does  
13 not relate to the information disclosed.

14 BY MR. MAINLAND:

15 Q But it relates to the expected nature  
16 of the information disclosed; right?

17 A The timing of it does not relate to  
18 the information disclosed. And it is the  
19 information disclosed that investors will react  
20 to, not the fact that a 6-K is being filed.

21 Q All of the alleged corrective  
22 disclosures in this case were made via 6-K;  
23 right?

24 MR. ZOHRABIAN: Object to form.

25 THE WITNESS: You're talking about in

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1 the -- I think February, March?

2 BY MR. MAINLAND:

3 Q In the complaint, which of course is  
4 disputed, but the complaint goes through a  
5 series of dates in the February and March 2015  
6 time frame that the plaintiff alleges were  
7 corrective of prior disclosures. That's fair;  
8 right?

9 A I believe that that is -- yes, I just  
10 want to make sure that I understood what you  
11 were talking about.

12 Q Sure. That information came out in  
13 the form of a 6-K; right?

14 A The information --

15 MR. ZOHRABIAN: Objection to form.

16 THE WITNESS: -- was filed with the --  
17 the information was filed in a 6-K. I don't  
18 know if that's the -- as I sit here right  
19 now, I don't know if that is the first time  
20 it was disclosed to the market or not.

21 BY MR. MAINLAND:

22 Q You state in your report that you  
23 reviewed SQM's filings on Form 6-K. Just to be  
24 clear, did you read every single 6-K?

25 A I'm trying to think. There were a lot

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1 of them. I mean, I may not have read all of  
2 them.

3 But I certainly read ones that were  
4 referenced in the complaint or on those dates,  
5 yes.

6 Q Why did you review any 6-Ks other than  
7 the financial release dates?

8 A I want to get a sense of the  
9 information that was disclosed about the company  
10 during the class period of time.

11 Q Why?

12 A Because I thought that was something I  
13 want to know.

14 Q Why?

15 A Because I was analyzing market  
16 efficiency and I wanted to see that information  
17 about the company was disclosed to investors  
18 because the investors was not aware of what was  
19 going on with the company.

20 That would be something that I would,  
21 you know, note. And this is an ADS type of a  
22 company. So not all foreign companies are  
23 supporting their stock in the same way that SQM  
24 was. I think SQM was a level 3 type ADR. So  
25 they had a lot of filings and they provided a



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1 lot of information about the company.

2 Q Did you consider using any 6-K other  
3 than the 19 financial releases as part of your  
4 test?

5 A No. I think that the benefit of using  
6 the financial releases, which is what I do in  
7 I've decided to do in all of my cases, is that  
8 it is an unbiased example of information. I did  
9 not want to cherrypick and as I said earlier, I  
10 did not want to use all of them because there  
11 are so many 6-Ks and 8-Ks in my experience that  
12 do not convey any material information that it  
13 dilutes the difference between the news and no  
14 news base.

15 Q Why isn't just limiting yourself to  
16 financial releases cherrypicking?

17 MR. ZOHRABIAN: Object to form.

18 THE WITNESS: Because the financial  
19 releases are specifically identified in  
20 Cammer Factor 5. And you do it on a  
21 consistent bases from -- so you can look at  
22 my report, you can look at the reports I  
23 have submitted after SQM and you can look at  
24 them before. I'm not cherrypicking it for  
25 this particular case, it is what I typically

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1 do. I look at earnings releases.

2 BY MR. MAINLAND:

3 Q Is the Cammer court's statement  
4 regarding financial releases prescriptive of  
5 what you should do?

6 A No, but the Cammer court was unbiased  
7 in the sense that it didn't pick these things in  
8 order to favor one or the other. Regardless,  
9 when you look at financial releases, I think  
10 that's the most unbiased sample that you can  
11 come up with.

12 If I'm wrong, someone can pick another  
13 group of events that I should have looked at and  
14 we can see what the result of that is.

15 MR. MAINLAND: How long have we been  
16 on the record?

17 VIDEOGRAPHER: One hour, nine minutes.

18 MR. MAINLAND: Why don't we take a  
19 break.

20 VIDEOGRAPHER: This marks the end of  
21 media 4, Volume 1 in the deposition of Bjorn  
22 Steinholt. The time is 3:40, and we're off  
23 the record.

24 (Recess taken.)

25 VIDEOGRAPHER: This marks the

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1 beginning of media 5, Volume 1 of the  
2 deposition of Bjorn Steinholt. The time is  
3 4:03, and we're on the record.

4 BY MR. MAINLAND:

5 Q Mr. Steinholt, do you agree that the  
6 price of a stock reflects the market's  
7 measurement of the present value of its future  
8 cash flows?

9 MR. ZOHRABIAN: Objection to form.

10 THE WITNESS: Yes.

11 BY MR. MAINLAND:

12 Q So -- okay. So given that you agree  
13 with that, are financial disclosures more  
14 readily impounded into the stock price than  
15 nonfinancial disclosures?

16 MR. ZOHRABIAN: Same objection.

17 THE WITNESS: I'm not sure. I suppose  
18 that would depend on the information  
19 disclosed.

20 BY MR. MAINLAND:

21 Q Isn't it easier to calculate the  
22 impact on the present value of future cash flows  
23 when the information disclosed is financial in  
24 nature as opposed to something more qualitative?

25 MR. ZOHRABIAN: Objection to form.

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1 THE WITNESS: Yes, the more  
2 information you have, the clearer it is, the  
3 more quantitative it is, that's --  
4 everything else being equal, that would be  
5 more -- it would be easier to quantify than  
6 just qualitative statements.

7 BY MR. MAINLAND:

8 Q All things equal, wouldn't the test --  
9 excuse me. All things equal, wouldn't the test  
10 that you ran be more robust if you had  
11 considered the share price reaction to different  
12 kinds of information?

13 MR. ZOHRABIAN: Object to form.

14 THE WITNESS: More robust? I'm not  
15 sure one way or the other. I have not  
16 thought about it.

17 BY MR. MAINLAND:

18 Q You agree, do you not, that efficiency  
19 might vary across information items?

20 MR. ZOHRABIAN: Same objection.

21 THE WITNESS: You know, I suppose so.  
22 I'm not sure.

23 BY MR. MAINLAND:

24 Q Well, let's go to what I believe was  
25 Steinholt Exhibit 2. I'm not sure, it's the

1 Barber, Griffin, Lev article.

2 Is that Steinholt Exhibit 2?

3 A Yes, it is.

4 Q You're familiar with this article. We  
5 already discussed it earlier today; right?

6 A It is one I have read. I have not  
7 recently read it, but I certainly can take the  
8 time to read it if you need me to.

9 Q No, I don't need you to read it. I'll  
10 just ask you some questions about it -- do you  
11 want to sit here and read it?

12 A It depends on what the questions are.

13 Q I won't ask my question then.

14 If you go to Page 290. Under the  
15 section candidate efficiency drivers, basically  
16 the bottom sentence on that Page 290 it says:  
17 Even for a given security and time period,  
18 efficiency might vary across different  
19 information items.

20 For example, while the market can be  
21 efficient with respect to a widely used and  
22 regularly reported item such as earnings, it can  
23 be inefficient, parentheses, react slowly to the  
24 release of information, closed parentheses, with  
25 respect to an infrequent, difficult to interpret

1 in my report. Just a second.

2 I may not have included in this  
3 report, but the fact that it reacts more slowly  
4 it may only mean that it takes more time to  
5 analyze, it does not necessarily mean that you  
6 have an opportunity to generate excess profits  
7 on it.

8 It may simply be that instead of  
9 knowing the economic implications right away, it  
10 takes some time.

11 Q That's what you were saying earlier  
12 today. I continue to have a hard time with that  
13 concept. It takes some time for investors to  
14 decide how to interpret a particular item?

15 A That's correct. Sometimes it takes  
16 analysis in order to interpret information  
17 that's being disclosed by a company. And  
18 sometimes what the investors will do is to call  
19 around to get additional information to get a  
20 fuller understanding of the issue at hand.

21 Things just take longer time. And  
22 with respect to earnings releases, if you just  
23 beat earnings by, you know, a couple of pennies,  
24 that is something that analysts are prepared to  
25 analyze very quickly. But if you have new

1 item such as the announcement of a new business  
2 alliance.

3 Do you see that?

4 A Yes.

5 Q Do you agree with that statement?

6 A If I understand it correctly, I think  
7 that was the point I was trying to make this  
8 morning when I was talking about some  
9 information is more complex than other  
10 information.

11 So consequently, it may -- the  
12 reaction may be more slow with respect to some  
13 information than other information.

14 Q By slow you mean inefficient; right?

15 A They talk about it inefficient, and  
16 react slowly to the release of information.  
17 With respect to reacting slowly, that does not  
18 necessarily mean inefficient.

19 Q So you disagree with them on that?

20 A I don't know if that is exactly -- I'm  
21 just answering your question. I don't -- I'm  
22 not sure that this addresses exactly what you're  
23 talking about.

24 Let me double check if I included one  
25 article here that actually addresses this issue

1 information, that is a little bit more complex,  
2 that need additional analysis, then it's going  
3 to take more time.

4 That does not necessarily mean that  
5 the market is inefficient.

6 Q So the market for certain types of  
7 information may react somewhat slowly to that  
8 information, and nonetheless, be an efficient  
9 market?

10 A That's correct.

11 Q So you disagree with Barber and  
12 Griffin and Lev on that point?

13 A Well, I don't think that they -- I  
14 think that they are making a different point. I  
15 think that they believe that it could be -- it's  
16 not simply that it's reacting more slowly but  
17 it's reacting so slowly that, in fact, there are  
18 arbitrage opportunities for -- that otherwise  
19 would not exist for investors.

20 Q Turn to Page 294, if you would.

21 They say -- under the section the  
22 efficiency criterion, the authors write: In an  
23 efficient market, all publicly released  
24 information should be quickly and fully  
25 reflected in the price of a security.

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1 You agree with that statement; right?

2 A I'm sorry, what page are you on?

3 Q 294, please.

4 A I'm sorry.

5 Q You agree with the first sentence  
6 under the efficiency criterion?

7 A That is a definition of efficient  
8 market that is commonly used, yes.

9 Q Then further down, I guess three  
10 paragraphs down, the paragraph starting with,  
11 "We chose corporate earnings," it says:  
12 Earnings information -- this is the second  
13 sentence: Earnings information, therefore, sets  
14 a lower bound of market efficiency.

15 Would you agree with that statement?

16 MR. ZOHRABIAN: Object to form.

17 THE WITNESS: I'm not sure. I would  
18 have to look at the basis for it.

19 BY MR. MAINLAND:

20 Q They go on to say: It is conceivable  
21 that a given stock is traded efficiently with  
22 respect to earnings, i.e., price reacts quickly  
23 and unbiasedly to the release of earnings, but  
24 inefficiently with respect to other information  
25 items which are more difficult for investors to

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1 also makes it different.

2 I think it's certainly reasonable to  
3 expect that it would take longer time to  
4 incorporate more complex information than  
5 easily interpreted earnings releases. Not  
6 all earnings releases are easily  
7 interpreted, but some are.

8 BY MR. MAINLAND:

9 Q You don't view that as an efficiency  
10 issue; is that your testimony?

11 A It could be an efficiency issue. It  
12 may or may not be. It's just that we are --  
13 whenever we deal with what's possible, there is  
14 a lot of things that are possible in the world.

15 Q Are the misstatements at issue in this  
16 lawsuit financial in nature?

17 A The statements that are at issue --

18 MR. ZOHRABIAN: Objection, form.

19 THE WITNESS: -- are  
20 misrepresentations, and the corrective  
21 disclosure --

22 BY MR. MAINLAND:

23 Q Why don't I just withdraw the question  
24 and restate the questions.

25 Are the alleged misstatements at issue

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1 interpret, i.e., a new business alliance, a new  
2 strategic plan.

3 Do you agree or disagree with that  
4 statement?

5 A It's -- obviously, it's possible that  
6 it's more efficient -- or that it's more  
7 efficient relating to earnings releases if, in  
8 fact, as it seems like these -- these authors  
9 are doing is defining efficiency by the time it  
10 takes to react to information than to other  
11 information.

12 So -- and again, I have not read the  
13 basis for it, but I don't have -- as I sit here  
14 right now, I don't have a problem with it.

15 Q Do you accept the possibility that a  
16 market might be efficient with respect to  
17 earnings information but not with respect to  
18 other kinds of information?

19 MS. ZOHRABIAN: Object to form.

20 THE WITNESS: It may be less efficient  
21 with respect to other information. I'm not  
22 exactly -- if by inefficient, you mean it  
23 would ignore other information or  
24 inefficient you mean that it just takes  
25 longer time to fully incorporate, then use

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1 in this lawsuit financial in nature?

2 MR. ZOHRABIAN: Object to form.

3 THE WITNESS: My understanding is that  
4 it's part financial in nature with respect  
5 to not complying with GAAP and -- but it  
6 also relates to other issues such as not  
7 complying with the law and not having an  
8 effective -- not having effective internal  
9 controls.

10 BY MR. MAINLAND:

11 Q Does a statement regarding the  
12 company's compliance with law convey any  
13 earnings information?

14 MR. ZOHRABIAN: Objection to form.

15 THE WITNESS: Whether or not it  
16 conveys any earnings information? I assume  
17 you mean historical earnings because that's  
18 typically the focus of earnings releases.  
19 It does not say anything necessarily about  
20 prior earnings.

21 BY MR. MAINLAND:

22 Q Does -- well, necessarily or at all?

23 A Well --

24 MR. ZOHRABIAN: Same objection.

25 THE WITNESS: It depends on what the

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1 statement is.  
 2 BY MR. MAINLAND:  
 3 Q It's in the complaint. I'm not being  
 4 hypothetical, I'm asking about the misstatements  
 5 in the case. You've reviewed the complaints;  
 6 correct?  
 7 A Yes, I have reviewed the complaint.  
 8 Q The complaints is extremely detailed,  
 9 it goes through each one, there are dozens of  
 10 them that the plaintiff alleges were material  
 11 misstatements made by SQM; isn't that right?  
 12 MR. ZOHRABIAN: Objection to form.  
 13 THE WITNESS: That's correct.  
 14 BY MR. MAINLAND:  
 15 Q You can just read them. Do they  
 16 contain earnings information?  
 17 MR. ZOHRABIAN: Object to form.  
 18 THE WITNESS: Okay. The earnings --  
 19 BY MR. MAINLAND:  
 20 Q Is that a hard question? It's yes or  
 21 no, isn't it?  
 22 A Whether or not a statement relates to  
 23 historical earnings --  
 24 Q That's not what I said.  
 25 A Well...

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1 THE WITNESS: The only event that  
 2 specifically relates to the allegation in  
 3 this case would be the corrective disclosure  
 4 that I tested at the very end with the  
 5 resignation of the board members.  
 6 BY MR. MAINLAND:  
 7 Q Are you saying you have an opinion as  
 8 to whether that -- let me back up. I'll  
 9 withdraw that question.  
 10 So I just want to be clear, just  
 11 distinguish what I'm asking about. I'm asking  
 12 about the alleged misstatements in the  
 13 complaint, not the corrective disclosures but  
 14 the alleged misstatements on the front end that  
 15 the plaintiff has alleged caused inflation in  
 16 the stock price.  
 17 A You're talking about statements that  
 18 omitted certain information related to the  
 19 fraudulent alleged fraudulent conduct?  
 20 Q According to plaintiff, yes.  
 21 A I think that in -- I mean, I have  
 22 tested the statistical significance of -- every  
 23 day to the extent some of these  
 24 misrepresentations were made on earnings release  
 25 dates, I have tested the statistical

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1 Q Do they contain earnings information?  
 2 A With respect to the question that I  
 3 answered quite awhile back, these are not  
 4 earnings releases. It doesn't relate to  
 5 historical earnings.  
 6 Now, you asked me repeatedly -- you  
 7 can ask the same question in a different form  
 8 and I would add and expand on that and explain  
 9 that a portion of the alleged misconduct does  
 10 relate to the historical earnings.  
 11 Q Were any numbers included in any of  
 12 the statements, the alleged misstatements in the  
 13 complaint?  
 14 MR. ZOHRABIAN: Object to form.  
 15 THE WITNESS: I do not believe so, no.  
 16 BY MR. MAINLAND:  
 17 Q Did the company restate its financials  
 18 with respect to the payments at issue in this  
 19 lawsuit?  
 20 A I do not recall that it did.  
 21 Q Did you test whether the market for  
 22 SQM shares was efficient with respect to the  
 23 kinds of information that are contained in the  
 24 alleged misstatements in the complaint?  
 25 MR. ZOHRABIAN: Object to form.

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1 significance on those days.  
 2 But my understanding based on my  
 3 reading of the complaint is that this is more of  
 4 what one would call an omissions case in the  
 5 sense that statements were false and misleading  
 6 as they would not be expected to cause an  
 7 increase in the stock price. It would be more  
 8 to conceal the truth. So a test of those  
 9 particular statements would not be particularly  
 10 relevant. It would be the disclosure of the  
 11 alleged truth.  
 12 Q But you're trying to -- you're  
 13 offering an opinion that is designed to support  
 14 the idea that it's reasonable to presume that  
 15 the market relied upon the integrity of the  
 16 market price; isn't that right?  
 17 A Yes, that's correct.  
 18 Q And that it's reasonable to presume  
 19 that the market relied on the integrity of the  
 20 market price precisely with respect to the kind  
 21 of information that allegedly inflated the stock  
 22 price; isn't that right?  
 23 MR. ZOHRABIAN: Object to form.  
 24 THE WITNESS: Well, when you make  
 25 statements designed to conceal some conduct,

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1 typically what would happen is that it's the  
2 disclosure of -- or a disclosure relating to  
3 that conduct that would be the focus on the  
4 analysis.

5 But I want to make one thing clear and  
6 that is that I do not -- I have not  
7 performed a price impact analysis; in other  
8 words, an analysis directly relating to the  
9 alleged fraud here.

10 I have performed a general market  
11 efficiency analysis and my understanding is  
12 that if the market is generally efficient in  
13 incorporating publicly-available information  
14 into the securities market price, it is  
15 reasonable to presume that a particular  
16 public material misrepresentation will be  
17 reflected in the securities price.

18 Furthermore, it is reasonable to  
19 presume that most investors, knowing that  
20 they have little hope of outperforming the  
21 market in the long run based solely on their  
22 analysis of publicly available information,  
23 will rely on the securities market price as  
24 an unbiased assessment of the securities  
25 value in light of all publicly-available

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1 information.

2 And that is me quoting Amgen in  
3 Paragraph 13. So that was --

4 BY MR. MAINLAND:

5 Q You're reading from your report  
6 there -- when you say Paragraph 13, you mean  
7 Paragraph 13 of your report?

8 A I was reading from my quote of the  
9 U.S. Supreme Court decision in Amgen on Page 13  
10 and what I'm trying to do is to be helpful to  
11 the court by looking at market efficiency and  
12 following the guidance that is set forth by  
13 Cammer by looking at the financial releases and  
14 also looking at market efficiency as the Supreme  
15 Court has discussed in their decisions.

16 Q So --

17 MR. ZOHRABIAN: I'll just note that it  
18 was on Page 6 in Paragraph 13, not Page 13.

19 MR. MAINLAND: Thank you. Of  
20 Mr. Steinholt's expert report; right?

21 MR. ZOHRABIAN: Mr. Steinholt's expert  
22 report.

23 BY MR. MAINLAND:

24 Q I appreciate the clarification that  
25 you haven't conducted a price impact analysis

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1 here. It's also fair to say it's sort of a  
2 similar way of saying the same thing, I guess,  
3 that you haven't done a loss causation analysis  
4 here; correct?

5 A That's correct.

6 MR. ZOHRABIAN: Object to form.  
7 BY MR. MAINLAND:

8 Q You haven't actually conducted a  
9 damages analysis, right, in the sense of  
10 quantifying what you believe any damages to have  
11 been suffered to be?

12 A That's correct.

13 Q Okay. And I understand that, but  
14 that's not really what I was asking. What I was  
15 asking -- I understand you're not taking a  
16 position, at least at this stage of the  
17 proceeding, whether any of the alleged  
18 misstatements actually caused damages to  
19 investors in the class; is that fair to say? At  
20 this stage, that's not something you were asked  
21 to opine on and you haven't done that analysis;  
22 correct?

23 A That's correct.

24 Q What you're really analyzing here is a  
25 general analysis of the market efficiency of

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1 SQM's ADS; is that fair?

2 A I think that's fair to say, yes.

3 Q So what I'm wondering on the market  
4 efficiency point, not about price impact, not  
5 about loss causation, not about damages, but  
6 just merely on the question of whether SQM's ADS  
7 rapidly incorporated all publicly-available  
8 information, is did you test the kinds of  
9 information that are alleged to have inflated  
10 the stock price there?

11 MR. ZOHRABIAN: Object to form.

12 THE WITNESS: No. I have trouble  
13 conceptualizing what that would be. But  
14 anyway, I have only performed what is  
15 included in my report.

16 BY MR. MAINLAND:

17 Q Would you agree that information on  
18 the topics of compliance with law or  
19 effectiveness of internal controls may be more  
20 difficult for investors to interpret than  
21 information concerning earnings per share  
22 revenues or EBITDA?

23 MR. ZOHRABIAN: Object to form.

24 THE WITNESS: It's a little bit more  
25 complex because we are dealing with severity



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1 and the degree. So the consequences of not  
2 complying with the law and having effective  
3 internal control can be quite severe. It  
4 may not be severe, it can be quite severe.

5 It can involve -- you know, if you're  
6 paying somebody bribes, I mean, that's money  
7 that's not going to the company. That's one  
8 component of it. You also have possible  
9 fines from regulators. That's one component  
10 of it. You have internal investigation that  
11 can be costly.

12 I was the expert in Walmart that  
13 recently settled and Walmart spent more than  
14 half a billion dollars on their internal  
15 investigation relating to the bribes  
16 primarily relating to Mexico. So it can be  
17 very, very costly.

18 And so there is a lot of different  
19 things such as reputational, you know,  
20 damage to reputation and things of that  
21 nature.

22 So I think you're right. There are a  
23 lot of different components. It can be  
24 quite severe and it may not be that severe.  
25 It can be difficult for analysts to

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1 determine how severe such an investigation  
2 or such a problem is.

3 BY MR. MAINLAND:

4 Q It was that last point that I was  
5 asking about. More difficult to interpret then  
6 just straight financials; is that fair?

7 MR. DEFENSE: Object to form.

8 THE WITNESS: Yes. You can have a  
9 wide variety of different outcomes and  
10 investors are put in a position to do their  
11 best and -- with respect to determining the  
12 severity of the problem.

13 BY MR. MAINLAND:

14 Q Are you aware that in the 20-F that  
15 was filed by SQM in 2015, that they disclosed  
16 that their auditor had identified a material  
17 weakness in the company's internal controls?

18 A I believe so, but it's not something  
19 that's fresh in my mind, no.

20 Q Is that the kind of information you  
21 think would be material to investors?

22 MR. ZOHRABIAN: Objection to form.

23 THE WITNESS: While I think that given  
24 the bribery scheme, I think that could  
25 certainly be important information for

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1 investors.

2 BY MR. MAINLAND:

3 Q A couple of things there. First of  
4 all, you said given the bribery scheme. I  
5 assume you haven't done any personal look into  
6 whether there was, in fact, bribery here, that's  
7 what is alleged in the complaint and you're  
8 assuming the truth of that; right?

9 A Yes, and I appreciate that. I have  
10 not conducted any analysis to determine that, in  
11 fact, there was a bribery scheme or illegal  
12 conduct. I just know generally that there was  
13 talk about an investigation in at least February  
14 and March and, of course, you had the board  
15 members resigning in mid March.

16 Q The question was really as a general  
17 matter, do you think a disclosure that the  
18 auditor has identified a material weakness in  
19 the company's internal controls would be  
20 material to investors?

21 MR. ZOHRABIAN: Object to form.

22 THE WITNESS: Yes, it's material and  
23 then in the sense that it's something that  
24 reasonable investors would want to know.  
25 And then the issue is, well, how severe is

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1 it because it could lead to, as I -- my  
2 prior answer a little while ago, there can  
3 be some very, very severe consequences and  
4 then again, it may not be severe. So the  
5 issue is severity.

6 BY MR. MAINLAND:

7 Q Are you surprised that -- I will just  
8 represent to you that according to your event  
9 study in Exhibit E of your report, on the date  
10 that the company disclosed this material  
11 weakness in internal controls, the ADS price did  
12 not move in a statistically significant manner.

13 MR. ZOHRABIAN: Object to form.

14 THE WITNESS: It will move in whatever  
15 manner it moves depending on all of the --  
16 the market's assessment of all of the  
17 information contained in the 20-F.

18 So what you would want to do is to  
19 analyze all of the component and then you  
20 would try to figure out the totality of the  
21 information that's disclosed. And so you  
22 wouldn't know one way or the other whether  
23 or not just by the information that you have  
24 provided me here right now.  
25

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1 BY MR. MAINLAND:

2 Q So that's another way of saying there  
3 might have been a lot of information in that  
4 20-F, maybe some of it canceled it out or  
5 something? I'm just trying to understand what  
6 you said.

7 A Well, that would be part of it. Then  
8 the question is whether or not the information  
9 is new and then the question is how is that  
10 information interpreted by analysts and  
11 investors; in other words, what do the analysts  
12 and investors view the future cash flow  
13 implication of that information.

14 And in an efficient market, and I have  
15 concluded the market is efficient, the price  
16 reaction answers that question.

17 Q So given that you believe that the  
18 market was efficient during this time period,  
19 given that the stock price didn't move in  
20 reaction to this news, your conclusion or your  
21 inference from that is that the information  
22 wasn't material to investors?

23 MR. ZOHRABIAN: Objection to form.

24 THE WITNESS: When you have an  
25 efficient market and if you have a price

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1 movement that is, you know, there's zero --  
2 let's say the return is zero, the stock  
3 price doesn't change at all, it probably  
4 changed a little bit in one direction or  
5 another. I'm just saying let's just say  
6 that there is no change in the stock price.  
7 What that would mean is that the totality of  
8 the information disclosed on that particular  
9 day as interpreted by investors would be  
10 immaterial.

11 BY MR. MAINLAND:

12 Q The Cammer court itself recognized the  
13 importance of allegation related information;  
14 right? That is, that the share price reaction  
15 to the particular type of information alleged to  
16 have been misrepresented; is that fair?

17 MR. ZOHRABIAN: Objection form.

18 THE WITNESS: I don't know what you're  
19 referencing. If you give me the opinion and  
20 where that comes from.

21 BY MR. MAINLAND:

22 Q I don't have the opinion with me. But  
23 I can at least tell you that the court -- here's  
24 a direct quote: The central question under the  
25 fraud-on-the-market theory is whether the stock

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1 price at the time plaintiff affected a trade  
2 reflected the, quote, misinformation alleged to  
3 have been disseminated.

4 Do you agree that that's the central  
5 question under the fraud-on-the-market theory?

6 A That's my understanding of the law. I  
7 don't have -- yes, that's my understanding of  
8 the law. That's a legal issue.

9 Q That's a legal issue, not an economic  
10 one?

11 A What is relevant to the  
12 fraud-on-the-market theory is a legal issue.

13 Q Do you know who Julio Ponce is?

14 A You have to refresh my memory.

15 Q Mr. Ponce was the chairman of the  
16 board at SQM at a certain time.

17 A Right.

18 Q Does that ring a bell?

19 A I do -- it does ring a bell and I  
20 think -- yes.

21 Q Are you aware that Mr. Ponce was  
22 charged with market manipulation by the SVS,  
23 which is essentially Chile's equivalent of the  
24 SEC, in September of 2013?

25 A I remember something to that effect,

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1 but to be quite honest with you, I wouldn't  
2 have -- as I sit here right now, it's such a  
3 long time since I actually read through all of  
4 that information, it's not something that's  
5 fresh in my mind.

6 Q Does that strike you as the kind of  
7 information that would tend to have an impact on  
8 SQM's ADS price?

9 MR. ZOHRABIAN: Object to form.

10 THE WITNESS: I would need to analyze  
11 it.

12 BY MR. MAINLAND:

13 Q Did you look at whether it did?

14 A I don't think I did. But as I sit  
15 here right now, I don't recall.

16 Q Have you heard of something called a  
17 Caso Cascadas scandal?

18 A Again, this is something that I may  
19 have reviewed a year ago, but as I sit here  
20 right now, it's not fresh in my mind.

21 Q When you tested the 19 potential  
22 release dates, five of them are associated with  
23 a statistically significant return; right?

24 A At the 5 percent level, yes.

25 Q Correct, at the 5 percent level. Feel

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1 free to look at your report if you need to. Why  
2 don't we do that together just so we're on the  
3 same page. Let's go back to Exhibit E. When I  
4 say Exhibit, E I mean to your report.

5 And is it fair to say on the dates of  
6 the financial -- the effective dates of the  
7 financial releases, you put a sort of  
8 rectangular box around those particular dates in  
9 Exhibit E?

10 A That's correct, yes.

11 Q Okay. And when you say the P value --  
12 there's either a no or a yes in the right column  
13 for P value. When it says no, that means the  
14 return was not statistically significant at the  
15 5 percent level. And when it says yes, it means  
16 it was; correct?

17 A That's correct.

18 Q Okay. And so the class period begins  
19 on June 30, 2010, if I'm not mistaken. I know  
20 there's some dates in here that predate that,  
21 but -- and if I'm reading it correctly, the  
22 first financial release date on which you  
23 observed a statistically significant return was  
24 on August 31st, 2011. Does that seem right?

25 A That's correct, yes.

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1 Q And the period of time from June 30,  
2 2010, the first day of the class period, through  
3 August 31st, 2011 is approximately 14 months; is  
4 that fair?

5 A That's correct, yes.

6 Q Is it also fair to say that you  
7 uncovered no direct evidence of market  
8 efficiency during that 14-month period?

9 MR. ZOHRABIAN: Objection to form.

10 THE WITNESS: If you were only to look  
11 at that period and you used my methodology,  
12 then there would be no direct evidence of  
13 market efficiency.

14 BY MR. MAINLAND:

15 Q Would you agree that efficiency is  
16 something that can vary with time?

17 A This goes back to what we discussed  
18 earlier. There are situations where companies  
19 may experience a significant share decline, so  
20 that institutional investors get out of the  
21 stock and analysts stop covering the firm.

22 And it is entirely possible for a  
23 company going through such a transition to go  
24 from an efficiently traded stock to an  
25 inefficiently traded stock.

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1 Q And with respect to the 14-month  
2 period from June 30, 2010 to August 31st, 2011  
3 that I asked about, I think your answer to my  
4 question on that was that if you were only to  
5 look at that period and you used my methodology  
6 at that period, then there would be no direct  
7 evidence of market efficiency.

8 And so assume the hypothetical that  
9 that is the class period. And if you use the  
10 same methodology, as you said, you wouldn't be  
11 discovering direct evidence of market  
12 efficiency. Is there some other methodology  
13 that you would use in that context and then do a  
14 subsequent test?

15 MR. ZOHRABIAN: Object to test.

16 THE WITNESS: As I explained to you, I  
17 think it was a little bit earlier, what I  
18 would want to do if there is a limited  
19 number of earnings releases would be to  
20 expand the number. I mean, theoretically  
21 you can say that any earnings release that's  
22 not statistically significant means that for  
23 that period, you have not demonstrated  
24 market efficiency.

25 So you can always find periods but --

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1 within the total analysis that does not have  
2 statistically significant days.

3 But if you get too narrow and have too  
4 few observations, which is what we talked  
5 about during the morning session, then the  
6 analysis becomes less meaningful. So you  
7 would want to expand it.

8 BY MR. MAINLAND:

9 Q But 14 months is still a meaningful  
10 class period, is it not?

11 MR. ZOHRABIAN: Object to form.

12 MR. MAINLAND: That's a fair  
13 objection. It's a vague question. Why  
14 don't I be a little more specific about what  
15 I mean by that.

16 Q I think when we were talking earlier  
17 about general lengths of class period in cases  
18 that you've worked on, our finding was that both  
19 average and median members of the class periods  
20 were, if anything, a little bit less than the  
21 14-month period that I have been referring to in  
22 my -- in the preceding questions.

23 Is it really the case if that was the  
24 class period and you found no direct evidence of  
25 market efficiency based on the methodology you

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1 used, that you would then just expand the dates  
2 to see if you could find any on the other end?

3 MR. ZOHRABIAN: Same objection.

4 THE WITNESS: It wouldn't be based on  
5 not finding statistical significance. But  
6 what I have done in the past, and I think I  
7 testified to that, is that I have expanded  
8 it to include a two-year period because I  
9 would want to have a larger sample.

10 Now, if you have no statistically  
11 significant price movements during that  
12 particular class period and then you only  
13 expanded in order to pull in statistically  
14 significant price declines, I wouldn't do  
15 that. It would require further  
16 investigation in my view in terms of market  
17 efficiency.

18 BY MR. MAINLAND:

19 Q I think we might be conflating a  
20 couple of things. One thing is the amount of  
21 time in the class period and the other is the  
22 number of events that are appropriate candidates  
23 for testing during that class period.

24 A Right.

25 Q I'm not asking about whether -- you

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1 know, if there was an issue where you don't have  
2 enough appropriate candidates for testing,  
3 whether you might then go beyond the corners of  
4 the class period to find better candidates or  
5 other candidates. I'm asking if there are a  
6 perfectly good number of candidates, but the  
7 result is that not a single one of them is  
8 statistically significance and it's a 14-month  
9 time period, what would you do then?

10 A That's the point where I would have to  
11 do further investigation.

12 Q And what would the nature of the  
13 investigation be?

14 A I don't know.

15 Q Do you have any idea?

16 A I have encountered that in cases or  
17 particularly in one case where I opined that the  
18 market was inefficient. And that I discussed  
19 earlier. But I look at my analysis and my  
20 conclusion as being based on all of the  
21 information and you certainly would want to  
22 investigate any evidence that might not support  
23 a market efficiency further if such evidence  
24 existed.

25 Q Let's look at Paragraph 40 of your

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1 report, if you would.

2 Sorry, before we get there -- I mean,  
3 keep it there because I'm about to ask you some  
4 questions on that. Before we do that, let's  
5 just round off what I was just asking about.

6 On what basis can you conclude that  
7 the market for SQM's ADS was -- sorry, let me  
8 withdraw that.

9 On what basis can you conclude that  
10 there's direct evidence of market efficiency  
11 during the first 14 months of the class period  
12 for SQM's ADS?

13 A Well, the direct evidence comes from  
14 the analysis that I have performed, including  
15 analysis with respect to the fact that market  
16 information was quickly incorporated into the  
17 stock price and industry information was quickly  
18 incorporated into the stock price. With respect  
19 to earnings releases, that particular piece of  
20 it doesn't -- there are no earnings releases  
21 that cause a statistically significant price  
22 movement at the 5 percent level.

23 So if that was all of the -- if that  
24 was the only thing that you had, what you would  
25 want to do is to further investigate it.

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1 Q And meaning go to the 10 percent  
2 level?

3 A No. I mean, the level does not  
4 really -- you can do it at a 10 percent level,  
5 5 percent level or 1 percent level. The  
6 binomial distribution will account for that, so  
7 you can't cheat away by lowering the level.

8 But what you can do is to investigate  
9 the earnings releases and try to figure out,  
10 well, why is it that the stock price or that  
11 investors did not react to this information.

12 Maybe there is other information out  
13 there that is more appropriate or maybe the  
14 market is -- as I said earlier, I concluded in  
15 some other case, maybe the market is simply  
16 inefficient.

17 Q Did you do any of those things with  
18 respect to the first 14 months of the class  
19 period?

20 A No, I did not.

21 Q Now, turning to Paragraph 40, you  
22 state -- my apologies, let me just find where we  
23 are.

24 Okay. So in the third sentence in  
25 Paragraph 40 you state: There is almost one

1 chance out of 19 that a random price movement is  
2 statistically significant at the 5 percent level  
3 absent a cause and effect relationship.

4 That's not the entire sentence, but  
5 that's a portion of that sentence; right?

6 A Yes.

7 Q Can you just explain to me what you  
8 mean by that?

9 A It means that if you have a random  
10 sample, 5 percent of the time you will have a  
11 statistically significant price movement.  
12 5 percent out of 20 is one, 19 is slightly less  
13 than 20. Consequently, it's almost one when you  
14 have 20 observations.

15 Q So with a random sample, you're going  
16 to expect that one out of nine is going to be  
17 statistically significant?

18 A Roughly, yes.

19 Q On the basis of that incidence, you're  
20 not going to have any ability to determine if  
21 it's reacting to any specific situation or not;  
22 right? That could be just market noise?

23 A Well, this thing here -- this analysis  
24 here is not an analysis of the information  
25 disclosed. It is only the knowledge that there

1 is new information because there is an earnings  
2 release. So this is purely statistical  
3 analysis.

4 Q So the benchmark is -- when you say  
5 one would expect one return out of 19 financial  
6 announcements to be statistically significant at  
7 the 5 percent level, that's the benchmark. And  
8 then you look to see whether there were more  
9 than that; is that fair?

10 MR. ZOHRABIAN: Object to form.

11 THE WITNESS: No, it's actually a much  
12 more complicated analysis than that.  
13 BY MR. MAINLAND:

14 Q It's more complicated. Why don't you  
15 explain it then?

16 A So we have a binomial distribution  
17 and --

18 Q Right, I'm going to get to that.

19 A Okay.

20 Q That's -- I'm going to ask you about  
21 that in detail. I'm asking more about the  
22 predicate to it.

23 So I understand the binomial  
24 distribution, that you have an equation, that  
25 you have five out of 19 and you're basically

1 asking what are the odds that I am going to draw  
2 the same card five times. I get that and I will  
3 get into that in a minute. I'm actually just  
4 trying to understand the one out of 19.

5 You need to see something more than  
6 that to have statistical significance; is that  
7 fair?

8 MR. ZOHRABIAN: Object to form.

9 THE WITNESS: Well, the question is  
10 how much more in order for it to be  
11 statistically or in order for it to have a P  
12 value of 5 percent or less.

13 BY MR. MAINLAND:

14 Q I see. So let's just go through each  
15 step. This is obviously an important paragraph  
16 in terms of how your methodology is constructed.

17 So you then say: I determined that  
18 five out of SQM's 19 financial releases were  
19 followed by statistically significant share  
20 price movements at the 5 percent level.

21 That we've already established today.

22 Then you say: The cumulative  
23 probability of five or more days out of 19 being  
24 statistically significant at the 5 percent level  
25 simply by chance is significantly less than

1 1 percent.

2 So that's -- and that's where you drop  
3 the footnote to the cumulative probability.  
4 That's the binomial distribution that you're  
5 using there; right?

6 A That's correct.

7 Q Okay. So basically there is an  
8 equation and there are 19 sort of target dates  
9 and five of them end up being statistically  
10 significance and at -- you know, at the  
11 5 percent level and you run the equation and the  
12 cumulative probability is spit out.

13 In this case what was spit out is  
14 something less than 1 percent; is that basically  
15 right?

16 A That's correct.

17 Q I just want to make sure I understand  
18 it. Then you say: Consequently -- and this is  
19 sort of the conclusion sentence there -- the  
20 statistical evidence is strong that new and  
21 material company specific information was  
22 quickly incorporated into SQM's ADS price.

23 So what is the benchmark for what  
24 level of -- let me rephrase.

25 You say that the chance of it being



1 statistically significant at the 5 percent level  
2 simply by chance is significantly less than  
3 1 percent, that that would happen five out of 19  
4 times.

5 And then you conclude that that's  
6 strong evidence of new and material company  
7 specific information being quickly incorporated.

8 What is the level that you're looking  
9 for there to conclude that it's strong evidence?

10 MR. ZOHRABIAN: Objection to form.

11 THE WITNESS: Less than 1 percent.

12 BY MR. MAINLAND:

13 Q Well, I understand you observed less  
14 than 1 percent and you concluded that's strong.

15 A Right.

16 Q You know, I've looked at your binomial  
17 distribution equation. If you tinker with the  
18 numbers a little bit -- let me just represent  
19 this to you. I can confidently represent to you  
20 that this is how the numbers play out, that the  
21 cumulative probability of four or more days, not  
22 five days, but four days out of 19 being  
23 statistically significant at the 5 percent level  
24 by chance is 1.3 percent, which makes sense  
25 going in that direction.

1 Q Okay. And so you basically take the  
2 word strong out, but you would say there's  
3 evidence?

4 A Usually -- yes. If it's less than  
5 1 percent, typically what I do is to say it's  
6 highly statistically significance or strong  
7 evidence. It's just -- it's typically the way  
8 that I write my reports.

9 Q Let's just keep -- to keep going with  
10 the -- and I looked at this with the binomial  
11 distribution, the cumulative -- I can represent  
12 to you that the cumulative probability of three  
13 days out of 19 being statistically significant  
14 at the 5 percent level is 6.6 percent. Would  
15 you then conclude that there's evidence or --  
16 you certainly wouldn't conclude there's strong  
17 evidence; right?

18 A That's correct.

19 Q Would you conclude that there's  
20 evidence?

21 A Typically at the 10 percent level,  
22 typically the terminology that I use -- and I  
23 think this is actually the terminology that was  
24 used in the textbook that was -- that I  
25 referenced, is that at the 10 percent level,

1 Would you conclude then that the  
2 statistical evidence is strong that new and  
3 material information is quickly incorporated  
4 into SQM's ADS price?

5 A No, then it would be at the 5 percent  
6 level, not the 1 -- if you have something above  
7 1 percent, then it goes to the 5 percent level.

8 Q Well, what does that mean? So then  
9 what would you conclude, what would this  
10 consequently sentence say if those --

11 A That there's evidence, because there's  
12 one chance out of 20 that -- or one chance out  
13 of 1.5 percent that you're wrong. So the P  
14 value is basically the error rate, the  
15 probability that you're wrong; right.

16 So if you have a P value of 1.5, which  
17 I think you represented to me, so --

18 Q It was 1.3, but yes.

19 A 1.3, that means that you could be  
20 wrong because it could have happened randomly.  
21 It happens randomly 1.3 percent of the time.

22 So then I would not have used the term  
23 "strong," but you still have evidence and the  
24 evidence is more than the 5 percent level that  
25 is frequently used, yes.

1 there is some evidence.

2 Q So in that instance, there would be  
3 some evidence at the 10 percent level?

4 A At the 10 percent level, yes.

5 Q The 10 percent level is less -- has  
6 less confidence, so to speak, than the 5 percent  
7 level?

8 A Correct, yes.

9 Q And then just the exact same tinkering  
10 of the numbers, if it's just two out of 19, the  
11 cumulative probability of two out of 19 being  
12 statistically significant by chance is  
13 24.5 percent based on the binomial distribution,  
14 so what would you conclude in that circumstance?

15 A In that case, when -- you wouldn't --  
16 you couldn't reject the null hypothesis, which  
17 means that it could, in fact, be -- the  
18 difference between the two could be -- there may  
19 be no difference between the two using the type  
20 of benchmark that I typically use.

21 Q So if that were the results -- I mean,  
22 when you say you could not reject the null  
23 hypothesis, that's a statistician's way of  
24 saying you would not have evidence of new and  
25 material company specific information being

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1 quickly incorporated into the ADS price; right?

2 A Yes, that's correct, yes.

3 Q Now, the 19 financial release dates  
4 are a subgroup that you intentionally selected  
5 because they are -- let me rephrase.

6 The 19 financial release dates are a  
7 subgroup you intentionally selected to increase  
8 the rate of information flow; is that fair?

9 MR. ZOHRABIAN: Object to form.

10 THE WITNESS: To increase the --  
11 BY MR. MAINLAND:

12 Q Maybe that's the wrong way to phrase  
13 it. I can see you're skeptical. I'm not  
14 setting a trap for you, I'm not accusing you.

15 I'm literally saying: You chose those  
16 dates because they tend to have greater  
17 information flow than the average date just  
18 picked out of a hat?

19 MR. ZOHRABIAN: Same objection.

20 THE WITNESS: I picked them because  
21 there's greater probability on those days  
22 for there to be new material information  
23 that would result in a statistically  
24 significant price movement.

25 BY MR. MAINLAND:

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1 statistically significant days than on other  
2 days.

3 It may not be so even in an efficient  
4 market, but generally that is what the  
5 expectations -- expectation would be.

6 Q And you're not saying that if the  
7 market sometimes reacts to material news, that  
8 that would mean that the market is  
9 informationally efficient, would you?

10 MR. ZOHRABIAN: Object to form.

11 THE WITNESS: That if it sometimes --  
12 so on Thursday it's efficient but on Friday  
13 it is not?

14 BY MR. MAINLAND:

15 Q Yeah, or let's say all 19 days had  
16 highly material news and only half of them moved  
17 in a significant way, you're not saying that's  
18 informationally efficient because -- I'm just  
19 looking for some evidence that sometimes it  
20 reacts to news. That's not the standard; right?

21 MR. ZOHRABIAN: Object to form.

22 THE WITNESS: It reacts to news more  
23 than one would expect if there is no news.  
24 That is what I'm looking for.

25 And by the way, with respect to the

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1 Q Right. I think that's a different way  
2 of saying what I said. So I think we're agreed  
3 on that.

4 Wouldn't you expect the share price to  
5 move at a much greater rate than would occur  
6 randomly?

7 MR. ZOHRABIAN: Object to form.

8 THE WITNESS: I don't understand the  
9 question.

10 BY MR. MAINLAND:

11 Q You don't understand the question?

12 A No. The share price move at a greater  
13 rate, what does that mean?

14 Q Of the 19 dates, wouldn't you expect  
15 there to be more of them than would occur  
16 randomly?

17 A It would depend on the information  
18 disclosed.

19 Q But you think there is a greater  
20 likelihood that there will be materially --  
21 material information disclosed?

22 A Yes. I may have misunderstood your  
23 question. That's precisely the point. In an  
24 efficient market, when new material information  
25 is disclosed, you would expect there to be more

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1 earnings releases, it's not just the fact  
2 that when you look at the price movement in  
3 those earnings releases. You also have  
4 analyst commentary on earnings release days,  
5 you can look at the volume of many of these  
6 days. It seems to me quite obvious that the  
7 information disclosed on earnings release  
8 dates, it was widely distributed, it was  
9 analyzed by analysts and investors traded on  
10 it.

11 So it's not the only evidence that I  
12 have looked at with respect to earnings  
13 release dates. You're just focusing in on  
14 one component on it and that demonstrates  
15 that it was a greater likelihood the  
16 evidence would show that on earnings release  
17 dates, that the stock price reacted to  
18 company specific information.

19 BY MR. MAINLAND:

20 Q And the results you found were five  
21 out of 19 financial release dates were  
22 statistically significant; right?

23 MR. ZOHRABIAN: Object to form.

24 THE WITNESS: Correct, yes.

25 BY MR. MAINLAND:

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1 Q And that's about a quarter of the  
2 dates tested; right?

3 A Yes.

4 Q Thereabouts? It's not five out of 20,  
5 five out of 19, but it's close enough; right?

6 A Yes.

7 Q Okay. So in your experience, because  
8 I know you've done this exact kind of test in  
9 numerous prior cases. That's right, isn't it?

10 A That's correct, yes.

11 Q And in your experience, how common is  
12 it for only one-quarter of the financial release  
13 dates that you tested to show statistically  
14 significant returns?

15 MR. ZOHRABIAN: Objection to form.

16 THE WITNESS: That's a good question.

17 I mean, it depends a little bit on the  
18 company and how meaningful the earnings are  
19 for the company.

20 You have -- when you have a company  
21 that is basically having a commodity product  
22 where a lot of the value on the company is  
23 dependent on commodity prices and other  
24 factors, the earnings revealed on earnings  
25 days may not be as unexpected as for other

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1 companies where investors may be more in the  
2 dark with respect to what is ultimately  
3 disclosed on earnings release days. So it  
4 can depend a little bit on the company.

5 I have looked at some companies where  
6 the majority of the earnings releases have  
7 been accompanied by statistically  
8 significant results.

9 So some company earnings releases are  
10 extraordinarily important and frequently  
11 result in statistically significant price  
12 movements. For other companies, it's not  
13 necessarily that frequent.

14 BY MR. MAINLAND:

15 Q I went back to look and it seems like  
16 the lowest rate that you found in any of the  
17 cases where you've done an equivalent study was  
18 where half of the financial release dates were  
19 statistically significance and the average was  
20 more in the 70 percent range. One of them was  
21 as high as 87.5 percent.

22 Given that sort of background, did it  
23 give you pause or did it surprise you based on  
24 that prior experience to find that five out of  
25 19 were statistically significant?

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1 MR. ZOHRABIAN: Objection to form.

2 THE WITNESS: As you pointed out  
3 earlier, there is a large period in the  
4 early part of the class period where  
5 earnings seemed to be fairly consistent with  
6 what investors expected. So yes, I mean, it  
7 is lower than one would normally see  
8 primarily because of -- or at least in part  
9 because of that, which is the same issue  
10 that we've discussed in terms of the -- I  
11 think you said the first 14 months, there is  
12 no statistically significant price movements  
13 during that period of time.

14 BY MR. MAINLAND:

15 Q Can I direct you to Footnote 44?  
16 That's I guess associated with -- let me see  
17 where it is. That's also in Paragraph 40 of  
18 your report.

19 What you write there is: It should be  
20 noted that just because the company announced  
21 earnings does not mean that one would  
22 necessarily expect there to be a statistically  
23 significant price increase or decrease because  
24 the totality of the information disclosed could  
25 be interpreted by the market as being neutral.

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1 Is that your explanation for why all  
2 14 out of the 19 dates the share price did not  
3 move in a statistically significant way?

4 A No, it's not something I have -- I  
5 haven't provided any analysis to that effect in  
6 my report. I'm just offering this up as  
7 explaining the fact that it's very seldom that  
8 you find that 100 percent of the earnings  
9 releases are statistically significant. Usually  
10 it's a number less than that.

11 Q Did you go back to look at the 14 and  
12 develop a determination as to neutrality or  
13 non-neutrality?

14 MR. ZOHRABIAN: Objection to form.

15 THE WITNESS: No, I have not -- I  
16 don't have any analysis relating to that.  
17 If I did so, I would discuss it in my  
18 report.

19 BY MR. MAINLAND:

20 Q If you went back to look at the  
21 neutrality question, let's say you look at an  
22 individual financial release with an eye to is  
23 the information neutral to investors, doesn't  
24 that implicate the same subjectivity problem  
25 that you've identified earlier today and in your

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1 report?

2 MR. ZOHRABIAN: Objection to form.

3 THE WITNESS: I'm sorry, can you  
4 repeat the question?

5 BY MR. MAINLAND:

6 Q Sure. The question is: If you went  
7 back to look at the neutrality question, let's  
8 say you look at an individual financial release  
9 with an eye to whether the information was  
10 neutral from the point of view of investors,  
11 doesn't that implicate the same subjectivity  
12 issue that you've identified earlier today?

13 MR. ZOHRABIAN: Objection to form.

14 THE WITNESS: Well, one of the reasons  
15 that I did not do it is that I just  
16 presented, you know, an objective analysis.  
17 It is what it is. You know, you can -- so  
18 there is no subjectivity into it. Just the  
19 earnings releases, are they more likely to  
20 produce statistically significant results or  
21 not.

22 With respect to going back and doing a  
23 subjective analysis or doing an analysis of  
24 the neutrality, it is -- it would include  
25 some subjectivity but that -- I don't

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1 necessarily -- if that's the only option you  
2 have, I don't necessarily think that  
3 subjectivity is something that you cannot --  
4 that cannot be included in an analysis.

5 I don't necessarily have a problem if  
6 people would go back and look and  
7 subjectively analyze these particular  
8 earnings releases.

9 But the question of subjectivity, you  
10 know, the results may be scrutinized a  
11 little bit more than a purely objective  
12 analysis.

13 BY MR. MAINLAND:

14 Q Are you familiar with the problem of  
15 multiple comparisons?

16 A Yes.

17 Q You seem to have -- I can tell through  
18 your body language that you seem to have a  
19 particular view of that. Am I misreading it?

20 A No, I mentioned this multiple  
21 comparison issue in the article that I wrote,  
22 the Law360 article.

23 Q Right.

24 A So I have -- my issue is simply with  
25 respect to when it's misapplied and when it's

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1 not misapplied.

2 Q Right. That was the Law360 article  
3 where you were essentially criticizing the use  
4 of the Holm-Bonferroni method in connection --  
5 so that was the Law360 article where you  
6 criticized the use of Holm-Bonferroni in the  
7 context of a price impact analysis; is that  
8 fair?

9 A Yes, I think that it was in the  
10 context of a price impact analysis. I think  
11 that's correct, yes.

12 Q Why don't I back up, though?  
13 What is the problem of multiple  
14 comparisons?

15 A Well, there is not a problem -- well,  
16 if you are going to do multiple comparisons, you  
17 cannot just compare something one time and if  
18 you don't get the result you like, throw it out,  
19 do it again, throw it up and continue to compare  
20 something multiple times until you find a result  
21 that you like.

22 So that is the problem with doing so  
23 and sometimes I view it as data mining in terms  
24 of trying to find a pattern in data even though  
25 none really exists, but just by pure chance or

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1 randomly you find something that looks like a  
2 pattern and then you present it as if it is the  
3 only thing you looked at.

4 Q Let me just restate so you can tell me  
5 if you disagree with how I understand it or not.

6 When economists -- when financial  
7 economists refer to -- or statisticians refer to  
8 the problem of multiple comparisons, isn't the  
9 basic idea that the more comparisons that are  
10 conducted, the higher the probability of a false  
11 positive?

12 MR. ZOHRABIAN: Object to form.

13 THE WITNESS: Yes. You're going to  
14 have a false positive. It can go both  
15 directions, of course. But yes, you can  
16 have a higher probability of getting a  
17 positive result and so in those cases, I  
18 have used not the Bonferroni adjustment but  
19 the Sidak adjustment, but it's a similar  
20 type of adjustment in order to adjust your  
21 statistical results.

22 BY MR. MAINLAND:

23 Q And false positives are also referred  
24 to as type 1 errors; is that right?

25 A Correct, yes.

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1 Q And, well, I think you already -- you  
2 almost predicted my question. What I was going  
3 to ask is: Are there ways to correct for  
4 multiple comparisons?

5 And I think you -- Holm-Bonferroni is  
6 something I mentioned. Isn't that one method  
7 that statisticians use to correct for the  
8 problem of multiple comparisons?

9 A Yes, it's one way of doing it. And I  
10 just mentioned that I typically use a different  
11 method, but it's just numbers, it's just  
12 statistics.

13 Q I did not hear what you said. What is  
14 the other method?

15 A I said the Sidak.

16 Q How do you spell that?

17 A S-I-D-A-K.

18 Q How does the Sidak adjustment differ  
19 from Bonferroni?

20 A To be quite honest with you, as I sit  
21 here right now, I don't know, but it's the  
22 two -- it's two very common ways of adjusting  
23 for multiple comparisons.

24 Q Did you apply either of those  
25 adjustments to the comparisons that you

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1 conducted here?

2 A No.

3 Q Did you feel -- was there any reason  
4 you did not?

5 A I only conducted one analysis.

6 Q Meaning the binomial distribution?

7 A Correct.

8 Q And you did not think there was any  
9 rationale in looking to whether you should  
10 correct for the potential of false positive?

11 A Correction for false positive, I mean,  
12 no. The probabilities are whatever the  
13 probabilities are. This is just pure math.  
14 It's -- the equivalent of the binomial  
15 distribution is similar to the calculations you  
16 do in terms of what is the probability of  
17 flipping a coin and getting heads four times in  
18 a row.

19 So it's two, four, eight, 16, so it's  
20 one out of 16. Right? If you do it ten times,  
21 it's one out of 1024. And that doesn't change  
22 because it's just one analysis and it provides  
23 one answer.

24 I don't have any repeated testing  
25 involved in that analysis.

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1 Q Okay. So your view is that the test  
2 you conducted here just does not implicate the  
3 problem of multiple comparisons?

4 A Correct.

5 MR. MAINLAND: Why don't we take a  
6 break?

7 VIDEOGRAPHER: This marks the end of  
8 media 5, Volume 1 in the deposition of Bjorn  
9 Steinholt. The time is 5:16, and we are off  
10 the record.

11 (Recess taken.)

12 VIDEOGRAPHER: This marks the  
13 beginning of media 6, Volume 1 in the  
14 deposition of Bjorn Steinholt. The time is  
15 5:35, and we are on the record.

16 BY MR. MAINLAND:

17 Q Sir, what is a Z test?

18 A Well, it's similar to a T test, but  
19 for my purposes, I don't make a distinction  
20 between it. I could have used a T test or Z  
21 test, but one has to do with population, one has  
22 to do with a sample.

23 Q You used a T test in this case?

24 A Well, the T test and Z test, if the  
25 sample is large enough, it effectively ends up

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1 being the same thing. I could have called it a  
2 Z test. I used the same.

3 Q You're seeing Z test as in zebra;  
4 right?

5 A Correct.

6 Q I just want to make sure.

7 So I've seen a lot of cases in  
8 securities litigation where a Z test is  
9 conducted to compare news days to nonnews days.  
10 Are you familiar with that kind of approach?

11 A Correct. That's the narrow approach  
12 to doing things, yes.

13 Q You don't do it that way?

14 A No. They wrote this article, I don't  
15 remember if it was in St. Paul Law Review or  
16 some article where they proposed this test.  
17 There are, of course, various problems with it  
18 and I discussed these problems in various  
19 reports and there was some subsequent paper that  
20 David Tabak wrote where he kind of summarized  
21 some of the concerns that I had relating to that  
22 particular test. And that is to objectively  
23 determine what is a news day and what is no news  
24 days.

25 In order to get something that is



1 statistically significant, it is not sufficient  
2 to simply impact the price but it has to impact  
3 the price quite a bit in order to meet the  
4 55 percent benchmark.

5 So when you have a large sample of  
6 so-called news days, a lot of those news days  
7 will not meet that threshold and consequently,  
8 you will dilute the differences between the two.

9 It's kind of like what I was talking  
10 about earlier. You have one group who has the  
11 placebo and you have one that's given the drug.  
12 And now you're kind of mixing the two a lot and  
13 then it becomes very different -- difficult to  
14 get any result that's not inconclusive.

15 Q So I think you said a lot of those  
16 news days will not meet that threshold and  
17 consequently will dilute the differences between  
18 the two.

19 They will not meet the threshold of  
20 materiality?

21 A It may be material in the sense that  
22 it impacted the stock price. But just because  
23 you have an event day with new information that  
24 impacts the stock price, that does not mean that  
25 you meet the threshold of being statistically

1 significant. And that's because it's not just  
2 to have false positive, you can also have what's  
3 called false negatives. In other words, you may  
4 not be able to detect the impact even though  
5 there is an impact and that's the type 2 error.

6 And that is one of the issues with the  
7 single form -- the single firm event study. It  
8 has low power, so you end up with what's  
9 effectively inconclusive results a lot of the  
10 time.

11 So that's my main criticism of that  
12 particular analysis.

13 Q Have you ever conducted a Z test?

14 A I have conducted Z tests just to see  
15 exactly what the opposing expert has done. So I  
16 have duplicated what has been done by an  
17 opposing expert just to understand exactly how  
18 the statistics work.

19 Q But plaintiff's on -- sorry,  
20 withdrawn.

21 Experts on the plaintiff's side  
22 conduct Z tests to analyze market efficiency all  
23 the time, don't they?

24 MR. ZOHRABIAN: Objection to form.

25 THE WITNESS: When you say Z test,

1 that's a different term in my book. You  
2 know, I mean, that is not the known use news  
3 day test in my vocabulary. Maybe somebody  
4 uses it, but I think they use typically the  
5 first letter of each of the authors named  
6 when they describe this particular model.

7 BY MR. MAINLAND:

8 Q The FTD test?

9 A Correct. So that is the name that's  
10 familiar to me. I probably answered your  
11 question earlier with respect to Z test, which  
12 is similar to a T test in statistics. So I  
13 misunderstood your earlier question. I did not  
14 know that you were actually talking about the  
15 FTD test.

16 Q What I'm really asking about, setting  
17 aside FDT, set aside Z test, it doesn't matter  
18 what it's called. There are a lot of experts  
19 who will look at, will identify, quote/unquote,  
20 news days and identify nonnews days and look to  
21 see whether there is a greater incidence of  
22 statistically significant returns on the news  
23 days as compared to the nonnews days; right?

24 A There are experts on both sides, so I  
25 performed the test. But the particular problem

1 in this particular case is that we are dealing  
2 with SQM. SQM is a massive company, it's a  
3 large company. Arguably every day is a news  
4 day. In other words, every day has new  
5 information because it's just simply such a  
6 large company.

7 So how do you determine which day is a  
8 news day and which day is a no news days? And  
9 this goes back to my example about the placebo  
10 and the drug. In order to -- for the test to be  
11 effective, you have to differentiate between the  
12 two. And that is the problem that I see. So it  
13 may be able to determine whether or not a market  
14 is efficient.

15 My experience has been that very, very  
16 frequently it does not, it ends up being  
17 inconclusive, because the samples end up being  
18 diluted.

19 Q Let's turn to March 18, 2015. That  
20 was the last day of the class period; right?

21 A That is correct, yes.

22 Q And among the information you  
23 considered in preparing your report was the  
24 complaint filed in this case; right?

25 A That's correct, yes.

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1 Q Were you provided the complaint at the  
2 outset of your engagement in this case?

3 A I had it from the very beginning, yes.

4 Q Was that among the first materials you  
5 reviewed?

6 A It's such a long time ago, to be quite  
7 honest with you, I don't really remember the  
8 process. But at some point early on, I would  
9 have reviewed the complaint.

10 Q Is the complaint typically something  
11 that you would look at at the outset of a new  
12 litigation consulting engagement?

13 A Yes, it is.

14 Q And you were aware at the outset that  
15 the complaint alleges that SQM's share price  
16 dropped by a significant amount on March 18th,  
17 2015; right?

18 A Did you say March 15th?

19 Q I said March 18th, 2015.

20 A I apologize.

21 Q That's fine.

22 A Yes.

23 Q What information was disclosed on that  
24 day?

25 A I have it in my report. Effectively

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1 three individuals on the board of SQM resigned  
2 and it was communicated or understood by the  
3 market that they resigned because they were  
4 concerned about the company not cooperating  
5 sufficiently in an investigation relating to the  
6 company.

7 Q And the complaint alleges that that  
8 news was a, quote/unquote, corrective  
9 disclosure; right?

10 A That's correct, yes.

11 Q And a corrective disclosure is a  
12 disclosure that reveals prior information or  
13 prior disclosures to have been false or  
14 misleading; right?

15 MR. ZOHRABIAN: Object to form.

16 THE WITNESS: No -- well, the way I  
17 define a corrective disclosure is a  
18 disclosure that corrects the inflation by  
19 disclosing the relevant truth or the alleged  
20 truth conceal by the misrepresentations.

21 BY MR. MAINLAND:

22 Q Fine. Did you consider whether it was  
23 appropriate to use as an event date a date that  
24 you already knew was associated with a  
25 statistically significant return?

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1 MR. ZOHRABIAN: Objection to form.

2 THE WITNESS: Well, first of all, I  
3 obviously suspected that it would be  
4 statistically significant given that the  
5 price decline was so large.

6 BY MR. MAINLAND:

7 Q Right.

8 A But it is obviously relevant to look  
9 at a particular event and actually test and see  
10 if that is true even though the answer is fairly  
11 obvious.

12 Q And why is it relevant? Relevant to  
13 what I guess is what I'm asking? What is it  
14 relevant to?

15 A It is relevant to see whether or not  
16 investors reacted to the news disclosed on that  
17 day just because the answer is so obvious that  
18 you can just look at stock price and see the  
19 15 percent decline, you still want to go through  
20 the process of actually conducting the event  
21 analysis and quantify the abnormal return and  
22 determine that it was, in fact, statistically  
23 significant.

24 Q So would it have been a reliable event  
25 study if you had just looked through the 1,187

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1 trading days, found the most five most  
2 statistically significant returns and then  
3 backed up from there to see whether there was  
4 news on those days?

5 MR. ZOHRABIAN: Object to form.

6 THE WITNESS: Would that be reliable  
7 for what purpose?

8 BY MR. MAINLAND:

9 Q Demonstrating market efficiency,  
10 direct evidence of market efficiency during the  
11 class period.

12 A I don't think that -- that's not the  
13 process that I would have done, but --

14 Q Because that would not be reliable in  
15 terms of analyzing market efficiency; right?

16 A Well, it's not typically the process  
17 you would go through. But that said, it does  
18 not mean that it does not have -- even if you do  
19 it in a manner that does not strictly follow the  
20 process you should be following, it does not  
21 mean that it does not have informational value  
22 to look at -- you know, to look at whether or  
23 not there is two things happening at the same  
24 time; in other words, disclosure of material new  
25 information and statistically significant price

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1 decline.

2 It's just not -- what you're  
3 describing to me is just not the process that  
4 one would typically follow.

5 Q Because the -- well, you wouldn't  
6 typically follow it because wouldn't really tell  
7 you anything, would it?

8 MR. ZOHRABIAN: Objection to form.

9 THE WITNESS: That's where you're  
10 wrong. You know, you can -- even though the  
11 process is incorrect, it does not mean that  
12 it's not informative to look at days and  
13 look and see whether or not there is  
14 material new information disclosed on those  
15 days.

16 It's just not the process that you  
17 typically would do if you wanted to analyze  
18 or if you wanted to look at the event first  
19 and then test it using the event study.

20 BY MR. MAINLAND:

21 Q Cammer 5 looks for direct evidence of  
22 a cause and effect relationship between material  
23 news and the share price; right?

24 A That's correct, yes.

25 Q So if you start with looking at the

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1 returns themselves and then go back to see was  
2 there news on days where there was statistically  
3 significant returns, does that tell you anything  
4 about actual causation?

5 MR. ZOHRABIAN: Object to form.

6 THE WITNESS: It can -- it may or may  
7 not. I mean, you're talking about a  
8 different process, doing something different  
9 than what I've done.

10 The --

11 BY MR. MAINLAND:

12 Q I'm not saying that's what you did,  
13 I'm just asking -- I'm not taking a position one  
14 way or the other as to what you did. I'm just  
15 asking: If you had done it that way, would that  
16 demonstrate causation?

17 A I would have to --

18 MR. ZOHRABIAN: Object to form.

19 THE WITNESS: You can analyze -- you  
20 can analyze the stock price movements  
21 different ways. And it is -- you know, you  
22 can -- it doesn't mean that it wouldn't have  
23 informational value. If you picked the five  
24 largest statistically significant price  
25 decline and see whether or not there is any

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1 material information on those days and if  
2 there were, you said, well, this is some  
3 evidence for market efficiency.

4 It's not as if it wouldn't have zero  
5 informational value. You can criticize it  
6 by saying, well, you know, I would prefer  
7 that you identify the days first like I did  
8 with the earnings releases and then do the  
9 analysis.

10 But it's -- it doesn't all of a sudden  
11 lose all meaning. It depends on what the  
12 data is. It is what it is.

13 BY MR. MAINLAND:

14 Q It would have -- you're saying it  
15 would potentially have informational value as to  
16 causation?

17 MR. ZOHRABIAN: Object to form.

18 THE WITNESS: If you have new material  
19 information on any day that is followed by a  
20 statistically significant price decline, if  
21 you can determine that the information  
22 disclosed on that particular day was new and  
23 material, and the stock price reacted just  
24 as one would expect, then that has some  
25 value.

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1 Now, typically what -- if you're going  
2 to do it by identifying the events a priori,  
3 I mean, yes, that's -- that would be a  
4 more -- a better way from a scientific point  
5 of view because a priori, you would have to  
6 do the analysis prior to knowing what the  
7 outcome is.

8 But, you know, ultimately, it still  
9 has some value to find new material  
10 information that's corresponding with  
11 significant price reactions.

12 BY MR. MAINLAND:

13 Q The word "corresponding" is exactly  
14 what I'm getting at. Isn't there a difference  
15 between correlation and causation?

16 A Absolutely. But correlation is all  
17 you can demonstrate with an event analysis. So  
18 you infer causation from correlation.

19 Q But if you literally just choose the  
20 five most statistically significant dates and  
21 then look to see if there is news and you  
22 discover that there was news, is that telling  
23 you anything other than that there is a  
24 correlation between the two?

25 MR. ZOHRABIAN: Object to form.

1 THE WITNESS: Well, yes. Because what  
2 is the likelihood that on all of those five  
3 days, there happened to be new material  
4 information that is directly consistent, for  
5 instance. I can tell you what the  
6 probability is, as a matter of fact. You  
7 would have five, so it would be two, four,  
8 eight, 16, 32 -- it would be one out of 32  
9 chance that you would get all of them to be  
10 consistent with the direction.

11 And that probability -- so even though  
12 you did not -- that's what my point is, even  
13 though you did not do the process in the way  
14 that one may want to do, if you want to do  
15 an a priori analysis beforehand, it doesn't  
16 mean that it doesn't have any informational  
17 value because it's very unlikely if a market  
18 is inefficient that you picked out the --  
19 the largest five price movements and right  
20 there it just happened to be, you know,  
21 material new information to explain it that  
22 is directionally consistent with how the  
23 stock price moved.

24 BY MR. MAINLAND:

25 Q So it would be a scientifically

1 reliable study if you chose the five most  
2 statistically significant dates during the class  
3 period and then looked at whether there was news  
4 on those days and if there was, to conclude that  
5 the market was generally efficient?

6 MR. ZOHRABIAN: Object to form.

7 THE WITNESS: It could be because you  
8 can do a statistical analysis and determine  
9 the probability of finding this type of  
10 correlation randomly, you can compare the  
11 two.

12 BY MR. MAINLAND:

13 Q We talked about how March 18th is the  
14 last day of the class period. It was also the  
15 most statistically significant change in the  
16 stock price during the class period; isn't that  
17 right?

18 A I have not looked, but it would not  
19 surprise me.

20 Q I can represent to you that it was  
21 based on what I'm seeing in your event study.

22 In fact, it was the most statistically  
23 significant return by a substantial margin. Is  
24 that -- does that come as a surprise to you?

25 MR. ZOHRABIAN: Objection to form.

1 THE WITNESS: No, and I think that  
2 that is evidence of market efficiency.

3 BY MR. MAINLAND:

4 Q Why is that evidence of market  
5 efficiency, the single most statistically  
6 significant return in the entire class period?

7 A You have negative news coming out and  
8 you have large statistically significant price  
9 decline.

10 Q It was -- more than a third of the  
11 board resigned on that day; correct?

12 A Correct.

13 Q Totally unexpectedly?

14 A Three individuals resigned, yes.

15 Q Three out of eight directors. So this  
16 was significant news for the company; right?

17 A I would think so, yes -- the reasons  
18 why they resigned was very significant, yes.

19 Q So it was a big news day?

20 MR. ZOHRABIAN: Objection to form.

21 THE WITNESS: Yes.

22 BY MR. MAINLAND:

23 Q And would you agree that even a  
24 grossly inefficient market will incorporate to  
25 some degree news that -- news about extremely

1 significant events?

2 MR. ZOHRABIAN: Objection to form.

3 THE WITNESS: A grossly inefficient  
4 market?

5 BY MR. MAINLAND:

6 Q Yes.

7 A Well, if it doesn't react -- if it's  
8 inefficient, then do not react to new  
9 information, then why would it incorporate this  
10 information?

11 Q Maybe I should just restate the  
12 question.

13 Would you agree that a grossly  
14 inefficient market will nonetheless incorporate  
15 to some degree news about extremely significant  
16 events?

17 MR. ZOHRABIAN: Objection to form.

18 THE WITNESS: I don't know what you  
19 mean by grossly inefficient.

20 BY MR. MAINLAND:

21 Q Highly inefficient, very inefficient?

22 A You know --

23 MR. ZOHRABIAN: Same objection.

24 THE WITNESS: If -- so the market has  
25 some efficiency. So I mean, it processes --

1 in this case, it processed information  
2 really, really quickly. And in an  
3 inefficient market who would the analyst be  
4 to analyze it, who are the investors there  
5 to trade on the information? How is the  
6 information distributed?

7 You have to have the structure in  
8 order for that information to become  
9 reflected in the stock price. So this is  
10 evidence of efficiency.

11 BY MR. MAINLAND:

12 Q Why don't we look briefly at the  
13 Cornell/Rutten article. I'm not remembering  
14 exactly what exhibit that was.

15 A Three.

16 Q Exhibit 3, thank you. And this is  
17 just to give a little more context to what I'm  
18 really asking you. Sorry.

19 If you turn to Page 457 of that  
20 article, Footnote 55. In the middle there it  
21 says: Although no market will be entirely  
22 inefficient in the sense that market price will  
23 always be impervious to news about company  
24 fundamentals, the market nevertheless may be  
25 impervious to some types of news. For example,

1 even though a grossly inefficient market will  
2 incorporate to some degree news about extremely  
3 significant events, e.g., a sharp unexpected  
4 decline in earnings, it may be impervious to  
5 more minor news that is still material, e.g.,  
6 the hiring of a new CFO. In such a market,  
7 whether a defendant's statement will be  
8 incorporated into price to some degree will  
9 depend on the type and significance of the  
10 statement.

11 And so this was incredibly significant  
12 news, this meaning the resignations on  
13 March 18th, it was big news. And it was the  
14 single most statistically significant return  
15 during the entire class period.

16 Why would that be an appropriate  
17 indicator of whether the share price was  
18 generally efficient during a five-year class  
19 period for all kinds of publicly-available  
20 information?

21 MR. ZOHRABIAN: Object to form.

22 THE WITNESS: Well, in the context of  
23 reliance, typically we want to determine  
24 that the stock price is generally efficient  
25 to infer that it was efficient related to

1 fraud related events.

2 In this case we have the fraud related  
3 events and you want to infer from the fraud  
4 related event and the price decline relating  
5 to the fraud related event that the market  
6 was generally efficient. Who cares whether  
7 or not -- if that is the argument, then you  
8 have already demonstrated what that -- with  
9 respect to the fraud related event, the  
10 correct disclosure, the market was  
11 efficient.

12 BY MR. MAINLAND:

13 Q There are a bunch of things in there.  
14 First of all, are you -- you're not doing a loss  
15 causation analysis here; right?

16 A I have not provided a loss causation  
17 analysis.

18 Q Do you have a view as to whether this  
19 was, in fact, a fraud related event?

20 A It is an alleged fraud related.

21 Q So you are not taking an opinion or  
22 you haven't done an analysis of whether you  
23 agree with the allegation. You're just assuming  
24 the allegation to be true for the purposes of  
25 your analysis?

1 A I'm assuming that it is an alleged  
2 fraud related event and I assume that is an  
3 event of great importance in this particular  
4 case because it is an alleged corrective  
5 disclosure.

6 Q Okay. But assuming, not opining?

7 A Exactly. I'm assuming that, yes.

8 Q Now, I just want to be -- I just want  
9 to understand. You said who cares whether or  
10 not -- I think what you were saying is who cares  
11 whether or not it shows whether the market was  
12 generally efficient. Isn't that precisely what  
13 you're trying to do?

14 MR. ZOHRABIAN: Object to form.

15 THE WITNESS: If you can demonstrate  
16 directly that the alleged fraud related  
17 events caused the stock price or impacted  
18 the stock price, in that -- under that  
19 scenario, then who cares about other types  
20 of information. I don't know, is there a  
21 legal reason to care about it.

22 If the issue is reliance and the  
23 reliance relates to whether or not the stock  
24 price was impacted by the alleged fraud  
25 related events, regardless of whether or not



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1 these events were true or not, why is that  
2 relevant?

3 That's actually the very point that  
4 was made in this one article that I included  
5 here. It is in Footnote -- let me --  
6 Footnote 6 by Macey, Miller, Mitchell and  
7 Netter, and that is that, you know, if you  
8 can directly demonstrate -- assuming that  
9 defendants can -- I'm not pretending to  
10 prove that their allegations are correct or  
11 not, but if you can demonstrate that the  
12 price reacted to either a misrepresentation  
13 or the disclosure of the relevant truth,  
14 then it seems to me that you have  
15 demonstrated that the market -- that would  
16 be important to a judge to consider in terms  
17 of determining whether or not the  
18 misrepresentations impacted the stock price.

19 BY MR. MAINLAND:

20 Q It sounds like you're conflating loss  
21 causation and damages analysis with market  
22 efficiency analysis.

23 A No, it's not the loss causation  
24 analysis because you assume that this is a  
25 corrective disclosure. And you assume that if

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1 there was a misrepresentation, that the alleged  
2 misrepresentation, that plaintiff's allegations  
3 are true.

4 Q But my question is a little simpler.  
5 If you were trying to demonstrate the general  
6 efficiency of SQM's ADS during the five-year  
7 class period, why would you choose the single  
8 biggest statistically significant return during  
9 that class period in one of the biggest,  
10 arguably, news events for the company during the  
11 class period?

12 MR. ZOHRABIAN: Objection to form.

13 THE WITNESS: First of all, as I  
14 previously testified, I did not choose the  
15 single largest price decline. In fact,  
16 until you told me, I didn't -- as I was  
17 sitting here, I did not know it was. I  
18 chose it because it was the last day of the  
19 class period.

20 No, my conclusion is not simply based  
21 on that particular event, as I've  
22 continuously testified throughout this  
23 deposition. I looked at all of the  
24 evidence. I believe that that is relevant  
25 evidence. I think that it is -- if you

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1 didn't have a price decline on the last day  
2 of the class period, I think that  
3 defendants -- and I think they would be  
4 right to bring that up to the court to point  
5 out the fact that the last day of the class  
6 period did not have a corresponding  
7 statistically significant price decline. So  
8 that's why I typically look at it.

9 But my opinion is in no way simply  
10 based on that one event analysis. It is one  
11 I did. You can -- you know, the judge is  
12 free to put whatever weight the judge wants  
13 on that analysis, but I base my opinion on  
14 all of the evidence in my report.

15 BY MR. MAINLAND:

16 Q But the last day of the class period,  
17 who chooses what the last day of the class  
18 period is?

19 MR. ZOHRABIAN: Object to form.

20 THE WITNESS: Presumably it is the  
21 investor who claims that he or she has been  
22 defrauded.

23 BY MR. MAINLAND:

24 Q And the plaintiffs sue because there  
25 has been a big drop on the last day of the class

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1 period?

2 MR. ZOHRABIAN: Objection.

3 BY MR. MAINLAND:

4 Q They determine what the class period  
5 is, they are the ones who are requesting that a  
6 court certify a class.

7 MS. ZOHRABIAN: Objection to form.

8 BY MR. MAINLAND:

9 Q So of course the last day of the class  
10 period is going to be a big drop.

11 MR. ZOHRABIAN: Object --

12 BY MR. MAINLAND:

13 Q Why would you look at that over and  
14 over again?

15 A Well, that's just an incorrect  
16 statement. I've looked at hundred of cases and  
17 it does not necessarily follow that the last day  
18 of the class period has a statistically  
19 significant decline. That is just incorrect.

20 Q What is the special significance of  
21 the last day of the class period as opposed to  
22 any other big day?

23 MR. ZOHRABIAN: Object to the form of  
24 the question.

25 THE WITNESS: The last day of the

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1 class period is a day that plaintiffs  
2 allege, correctly or wrongly, that new  
3 material, active information has been  
4 disclosed.

5 So if plaintiffs are correct in their  
6 allegations, then there should be a  
7 statistically significant negative return on  
8 that day.

9 That does not always happen in  
10 securities class actions. There are actions  
11 where the last day of the class period is  
12 not statistically significant. In this case  
13 it is.

14 BY MR. MAINLAND:

15 Q Okay. And there are five other days  
16 in the complaint where the plaintiff alleges  
17 that there were corrective disclosures; isn't  
18 that right?

19 A I think that there are gradual  
20 disclosures during the --

21 MR. ZOHRABIAN: Sorry, object to form.

22 THE WITNESS: -- end of February and  
23 during March.

24 BY MR. MAINLAND:

25 Q Right. And one example is on

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1 February 27th, SQM announced it had formed an ad  
2 hoc committee to look into the payments that are  
3 at issue in this case; isn't that right?

4 A Yes, that's correct.

5 Q And that it would be conducting an  
6 internal investigation into those  
7 payments?right?

8 MR. ZOHRABIAN: Object to form.

9 THE WITNESS: Correct.

10 BY MR. MAINLAND:

11 Q Do you have an opinion as to whether  
12 that information was new and would be viewed as  
13 material?

14 A I haven't analyzed that.

15 Q Why didn't you analyze that?

16 A It was not -- in my opinion, it was  
17 not -- it seemed more like a loss causation  
18 analysis to me than a market efficiency  
19 analysis.

20 Q Wasn't there news on that day?

21 A Yes, there was new information on that  
22 day as well as a lot of other days during the  
23 almost 1200-day class period. I didn't analyze  
24 every day just because there was new  
25 information.

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1 Q And -- but there was news on the last  
2 day of the class period too?

3 A There was news on the last day of the  
4 class period, yes.

5 Q And it's alleged to be a corrective  
6 disclosure?

7 A That's correct, yes.

8 Q You looked at that date?

9 A Correct.

10 Q And I'm just wondering why didn't you  
11 look at February 27th, which seems to be the  
12 same?

13 MR. ZOHRABIAN: Object to form.

14 THE WITNESS: The last day of the  
15 class period is the ending point of the  
16 class period.

17 BY MR. MAINLAND:

18 Q Agreed.

19 A So that if, in fact, that -- and this  
20 is for class certification purposes. The class  
21 period -- whether or not plaintiff is correct  
22 with respect to these other price declines does  
23 not impact the class period at all because you  
24 have a class period ending at the last day of  
25 the class period.

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1 Consequently, I want to look at the  
2 last day of the class period.

3 Q So -- but we're talking about general  
4 market efficiency here; right?

5 A We're talking about market efficiency  
6 in a reliance context for the purposes of class  
7 certifications, yes.

8 Q So there are five -- February 27th,  
9 there is alleged to be a corrective  
10 disclosure -- or put differently, it doesn't  
11 matter that it's a corrective disclosure, just  
12 significant news; right?

13 MR. ZOHRABIAN: Object to form.

14 BY MR. MAINLAND:

15 Q Let me just finish the question and  
16 then I'll just ask it.

17 March 11th is a similar date where the  
18 company -- and it's alleged -- you had read the  
19 complaint and there's all this stuff about how  
20 SQM announced that it received a request from  
21 the public prosecutor. March 13th, more  
22 information about Chilean government  
23 investigations. March 16th, the CEO of the  
24 company is terminated in the context of this  
25 unfolding news about payments to political

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1 figures.

2 You didn't look at any of those dates  
3 to determine whether they were evidence of  
4 market efficiency; correct?

5 MR. ZOHRABIAN: Object to form.

6 THE WITNESS: Yes, that's correct. I  
7 mean --

8 BY MR. MAINLAND:

9 Q I just don't understand why. Why  
10 would you look at March 18th and not those five  
11 other days?

12 MR. ZOHRABIAN: Object to form.

13 THE WITNESS: I always look at the  
14 last day of the class period.

15 BY MR. MAINLAND:

16 Q Right, and I'm not understanding why.  
17 And I'm sure it's my problem. I just haven't  
18 heard yet why you view that as a particularly  
19 significant date for determining whether the  
20 shares traded in an efficient market during the  
21 entire class period?

22 A Listen, it's getting late, I have  
23 given you the answer. And if that is  
24 insufficient, that's too bad.

25 Q It will remain one of the mysteries

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1 when I walk out of this deposition.

2 A Too bad.

3 MR. ZOHRABIAN: It's been asked and  
4 answered.

5 BY MR. MAINLAND:

6 Q Do you recall the Lending Club case,  
7 it's a fairly recent case?

8 A Yes, I do.

9 Q That involved a situation where the  
10 CEO was terminated as well; right?

11 A Yes, I believe so.

12 Q And I believe you considered that news  
13 in connection with that report in analyzing  
14 market efficiency?

15 A I think that was the last day of the  
16 class period.

17 Q That's why you looked at it?

18 A Well, it was a big news -- it was a  
19 big day with respect to the information that was  
20 disclosed on that day.

21 So it is -- so I would have looked at  
22 it. There was a lot of commentary talking about  
23 the importance of that particular event. So  
24 it's something that -- even though I don't have  
25 everything fresh in my mind, it is something

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1 that I am not surprised it that I looked at.

2 Q It was a big day for SQM when it was  
3 announced that their CEO had been terminated;  
4 right?

5 MR. ZOHRABIAN: Objection to the form.

6 THE WITNESS: I can look at the number  
7 of analyst reports that were issued  
8 following March 18th compared to all of  
9 these disclosures. And I think that kind of  
10 provides some indication how important  
11 investors looked at various types of  
12 disclosures.

13 I think that that disclosure at the  
14 very end was a lot more significant that was  
15 more likely to -- where one would clearly  
16 expect a particular stock price reaction  
17 than these other disclosures.

18 BY MR. MAINLAND:

19 Q Why?

20 A Well, because I'm of the same opinion  
21 as a lot of analysts that it was kind of  
22 difficult to figure out earlier on in terms of  
23 exactly what the severity and the magnitude was  
24 of the information that was disclosed.

25 So it would be more of an issue where

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1 you would analyze it in the context of damages  
2 and loss causation where you first established  
3 that the market is efficient and then you look  
4 at the price movements to determine how -- to  
5 try to figure out how investors interpreted that  
6 information.

7 Q But the CEO being hired, I mean you  
8 just said in Lending Club, it was a big deal,  
9 the CEO was fired. The CEO was fired here too?

10 MR. ZOHRABIAN: Objection.

11 THE WITNESS: And there was a big  
12 price decline here.

13 BY MR. MAINLAND:

14 Q No, actually, it was a statistically  
15 insignificant price reduction.

16 MR. ZOHRABIAN: Objection to form.

17 THE WITNESS: What is the date?

18 BY MR. MAINLAND:

19 Q Let's look. Let's go to your  
20 Exhibit E.

21 A Page 29.

22 Q So it was announced on March 17th.

23 A So you have I think --

24 Q The T-statistic there is 1.19; right?

25 A Correct.

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1 Q And is that a statistically  
2 significant return?

3 A By itself, no.

4 Q Okay.

5 A So you're talking about the much more  
6 complex analysis that I haven't performed which  
7 relates to analyzing the -- because you have  
8 multiple days where different things are being  
9 disclosed.

10 And what you have to do is to  
11 determine whether or not, when you look at it in  
12 combination, is it statistically significance or  
13 not. I have not performed that analysis, but  
14 that is the analysis I would perform if I wanted  
15 to know whether or not on the last -- let's say  
16 one, two, three, four -- five days when it was  
17 determined by the company that they were going  
18 to look into this particular issue and during  
19 that period of time what I would want to know  
20 specifically when the information was disclosed  
21 during that time period.

22 I would combine it and I would look at  
23 the cumulative of normal return over those five  
24 days and I would divide it by the standard  
25 deviation, multiply it by the square root of the

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1 number of days, square root of five, and I would  
2 determine is that statistically significant or  
3 not. I have not done that in this context, but  
4 that's what I would do if I did it.

5 Q Has the plaintiff indicated whether  
6 they intend to retain you to opine on issues of  
7 loss causation or damages?

8 MR. ZOHRABIAN: Objection to form.

9 THE WITNESS: No.

10 MR. ZOHRABIAN: I instruct the witness  
11 not to answer questions about conversations  
12 that we have had.

13 BY MR. MAINLAND:

14 Q Do you expect to play that role in  
15 this case?

16 A I have no expectations, but I can tell  
17 you one thing, I have had cases such as Novotel  
18 where you have had days that are not  
19 statistically significant but based on further  
20 analysis, I have been able to demonstrate that  
21 there, in fact, was surprise impact.

22 Q A leakage model, is that what it's  
23 called?

24 A In certain instances you can use a  
25 leakage model. In Novotel what I did was an

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1 intraday analysis. That was a case where there  
2 was a Daubert motion filed, it was rejected and  
3 there's also an academic article that discusses  
4 the way that I handled it and advocated using  
5 intraday trading in order to do a more detailed  
6 analysis.

7 This type of more detailed analysis is  
8 an analysis that I have not performed.

9 Q And in the context of this class  
10 certification motion, you don't intend to  
11 perform that analysis; right?

12 A No, I do not.

13 Q And the opinions that you will be  
14 offering in support of class certification are  
15 limited to those that are in your report and  
16 those that you've expressed today; is that  
17 correct?

18 A Correct.

19 MR. ZOHRABIAN: I object to the form  
20 of the question.

21 BY MR. MAINLAND:

22 Q Is there anything other than what is  
23 in your report or what may have said today that  
24 you intend to opine on?

25 MR. ZOHRABIAN: Object to form.

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1 THE WITNESS: Other than to respond to  
2 a potential rebuttal report.

3 BY MR. MAINLAND:

4 Q Sure.

5 A No, this is all.

6 Q And with respect to -- there's just  
7 one footnote I want to ask you about in your  
8 report. It's Footnote 46 in Paragraph 41.

9 So here you say: It is my  
10 understanding that this disclosure -- and this  
11 is referring to March 18th. It says: It is my  
12 understanding that this disclosure is alleged to  
13 be disclosure dates of the relevant truth  
14 concealed by the alleged misrepresentations in  
15 this case. Regardless, my analysis simply  
16 involves determining whether the disclosure  
17 impacted the ADS price consistent with the  
18 information disclosed.

19 So I just want to be sure I understand  
20 what you're saying there. I think it's what  
21 you've already said today is basically what  
22 you're looking at there is whether there's  
23 evidence that the share price reacted to news,  
24 not that the decline on that day was caused by  
25 the revelation of any alleged fraud; is that

1 fair?

2 A Absolutely. I have not performed a  
3 loss causation analysis and so it's just simply  
4 the news regardless of whether or not that  
5 specific news can be tied to the alleged fraud  
6 or not.

7 MR. MAINLAND: Why don't we take a  
8 quick break and we'll see if we have  
9 anything minor as follow-up and we'll come  
10 back on the record.

11 THE WITNESS: Okay.

12 VIDEOGRAPHER: This marks the end of  
13 media 6, Volume 1 in the deposition of Bjorn  
14 Steinholt. The time is 6:21 and we're off  
15 the record.

16 (Recess taken.)

17 VIDEOGRAPHER: This marks the  
18 beginning of media 7, Volume 1 in the  
19 deposition of Bjorn Steinholt. The time is  
20 6:23, and we are on the record.

21 MR. MAINLAND: Thank you,  
22 Mr. Steinholt, I have no further questions.

23 THE WITNESS: Thank you.

24 MR. ZOHRABIAN: I have no questions  
25 either.

1 VIDEOGRAPHER: This marks the end of  
2 media 7, Volume 1 and conclude today's  
3 deposition of Bjorn Steinholt. The time is  
4 6:24, and we are off record.

5 (Proceedings concluded at 6:24 p.m.)  
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1 I, LYNNE M. LEDANOIS, a Certified  
2 Shorthand Reporter of the State of  
3 California, do hereby certify:

4 That the foregoing proceedings were  
5 taken before me at the time and place herein set  
6 forth; that a record of the proceedings was made  
7 by me using machine shorthand which was  
8 thereafter transcribed under my direction; that  
9 the foregoing transcript is a true record of the  
10 testimony given.

11 Further, that if the foregoing  
12 pertains to the original transcript of a  
13 deposition in a Federal Case, before completion  
14 of the proceedings, review of the transcript [ ]  
15 was [X] was not requested.

16 I further certify I am neither  
17 financially interested in the action nor a  
18 relative or employee of any attorney or party  
19 to this action.

20 IN WITNESS WHEREOF, I have this date  
21 subscribed my name.  
22 Dated: November 9th, 2018  
23  
24  
25

\_\_\_\_\_  
LYNNE MARIE LEDANOIS  
CSR No. 6811

# ERRATA SHEET

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3 Deponent:

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